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LECTURES
ON
COMPARATIVE ANATOMY
AND
ANIMAL PHYSIOLOGY,

DELIVERED BY

ROBERT E. GRANT, M.D., F.R.S.E.,
&c., &c.;

Fellow of the Roy. Coll. of Physicians of Edin. and Professor of Comparative Anatomy and Animal Physiology in the University of London.

LECTURE XL.

ON THE ORGANS OF HEARING, SMELL, TASTE, AND TOUCH.

THE organs of hearing, smell, taste, and touch, like those of vision, are designed to convey to animals a knowledge of such of the properties of surrounding objects as are related to their existence or their well-being, and such properties alone are they capable of perceiving or of comprehending. The percussions given by outward objects to the air or water in which animals reside are communicated, like the undulations of light, to the general surface of their body, and may produce some feeble sensation, where there are yet no distinct acoustic instruments developed, as light appears to affect animals without eyes. And this accords with a remark often made on sea coasts, that the incessant noise resulting from the extension of steam navigation, materially affects the distribution of the lower marine invertebrata where no distinct organs of hearing are known to exist, and banishes them from their wonted habitations. But most of the higher classes of animals present, at the extremities of distinct auditory nerves, acoustic instruments adapted to concentrate sonorous undulations, and to render more distinct the perception of their force, their direction, or their rapidity of succession. The organs of hearing, like those of sight, have a distinct pair of nerves appropriated to their function, besides the accessory nerves with which they are accompanied, as in the other organs of the senses, and the impressions of sound may be communicated to these acoustic nerves, without their passing through the ordinary external apparatus of these organs, as through the solid parietes of the head, or by direct impressions on the nerves from within.

In tracing the forms and the development of this acoustic apparatus throughout the animal kingdom, we observe the same beautiful gradations of complexness and elaboration that we perceive in the organ of vision. It is an organ which communicates less important impressions than that of sight, and is comparatively limited in its distribution in the animal kingdom. The sensations that are most general in animals are those of touch derived through the skin; those are the most important to their protection and well-being, and they are the sensations we find most universally manifested from the lowest to the most perfect animals. Indeed all the other senses are but modifications of this most general sense of touch, and their organs may be considered as but appendages of the skin, like the teeth so firmly implanted in their osseous alveoli.

The organ of hearing is more related to the air than to the water, and is most developed in air-breathing classes. The percussions of the dense watery element, in which most of the lower invertebrata reside, affect rapidly and powerfully the whole surface of their body, and through that the most sensitive internal parts, without special acoustic organs to concentrate the undulations on particular nerves, and we ascend as high as the air-breathing insects, before we perceive a distinct organ appropriated to this sense. The ear, indeed, is already more complicated in insects than in all the other classes of invertebrata. We observe many animals of this class capable of emitting sounds, and having distinct hard instruments for pro-

ducing these audible sounds. We perceive also that those sounds are distinctly heard by the mates of these sonorous insects. Many insects, by their repeated vibrations and rubbings against each other of hard and highly-moveable parts of their body, produce a considerable sound, which is heard at some distance. You hear the proof of the perception of that sound, by the repetition of it by the female. They know each other's presence in the night by these sounds, so that they can approach each other, and the principal object of their being—the continuance of their race, is thus fulfilled; and this communication of nocturnal insects you perceive is often mainly dependent on their sense of hearing.

The organ of hearing in those animals already presents not only a distinct auditory nerve and vestibule, the first elements of all the acoustic apparatus, but also the rudiments of two of the semicircular canals, as was long since shown by CAMPARETTI in the *scarabæus*, and several other genera of insects. At the lower and lateral part of the head there is a minute round passage closed externally by a membrane, and leading on each side of the head to an internal vestibular sac, with two small curved canals extending from it. These are furnished with distinct nervous filaments, and constitute an acoustic organ common to many different forms of insects. They are placed more anteriorly on the head in the locusts where the minute canals are thin, membranous, and transparent, and the organ presents different degrees of development in the various species of locusts. Similar auditory organs are seen in the *cicadæ*, *vespæ*, *libellulæ*, and at the sides of the base of the long spiral proboscis of the *papiliones*; they are perceived also in ants, flies, and many other insects, belonging to almost every order of that great class. This vestibular sac, with its contained fluid and delicate transparent canals, confined entirely within the cranial cavity of insects, is provided with very distinct nervous filaments, and with an external opening analogous to the *fenestra ovalis*, covered with a thin membrane to receive the sonorous undulations of the air, and to convey them to the ento-lymph of these membranous canals, and the whole surface of the acoustic nerves. In the arachnida, which are also air-breathing animals residing in that thin medium, organs of hearing very similar to those of insects are observed, placed near to the mouth at the base of the palpi. The density of the exterior covering of these air-breathing entomoid animals, and the softness of the vestibular external membrane, render more obvious the position and entrance of the organs of hearing than if the whole exterior of the body were covered with a more uniform and soft integument, and it is probably in part from this circumstance, that a more simple rudiment of these organs has not hitherto been detected in the helminthoid classes, which present the rudimentary forms of almost all the complex organs of insects.

From the calcified condition and the great density and thickness of the exterior covering of the body, the organ of hearing, with its exposed fenestra, is very obvious in the crustaceous animals, especially in the quick-swimming, long-tailed, astacoid species, forming a circular aperture at the base of the outer pair of antennæ, which is covered in them by a soft membrane; but this membrane in the heavy, slow, short-tailed crabs is distinctly ossified. Here in the cray-fish and the lobster you perceive the vestibular opening, at the base of the outer antennæ, covered by a distinct soft, vibratile, tense membrane. Within this cavity you observe a white, soft, lengthened sac, on which is distributed a nervous filament from the great anterior supra-œsophageal ganglion. There is yet no osseous, solid, or cretaceous substance perceptible within this cavity. It passes obliquely upwards into the base or first segment of the antennæ for a short distance. Here there are no perceptible semicircular canals or other elements of the organ of hearing yet developed, but only this first simple vestibular sac—the central element of that important and complex acoustic apparatus to which so many accessory parts are added to perfect and extend its function in higher classes of animals. The exterior opening of this organ is placed on the lower surface of the first segment of the antennæ, and not upon the upper part of the head, as in higher classes; and this anomalous situation of the ear in the crustacea corresponds with the inverted position seen in most of the organs of their body. The margins of the aperture are often prominent and almost tubular, as in the *pagurus*, where the membrane appears fibrous like the tympanic membrane of mammalia. The ossified condition of this vestibular covering in the brachyourous decapods, and its delicate vibratile condition in the active long-tailed swimming macruous species, corresponds with the difference of locomotive power possessed by these two forms of decapods, and with the general inferiority of the organs of the senses in slow-moving animals, where they are obviously less exercised and less required. This covered condition of the ears in the short-tailed

crabs corresponds also with their closed and concealed situation within the cranial cavity in the cephalopods, and in many of the osseous fishes.

The fixed or slow-moving molluscous animals are generally very imperfectly provided with organs of sense, but many of the pulmonated gasteropods appear to hear and to smell, although we cannot determine the seats of these feelings, and the *tritonia arborescens* emits audible sounds, which are, no doubt, intended to be heard, and to serve as a means of communication between these blind hermaphrodite animals, although we cannot detect the organs appropriated to their perception. The cephalopods approach to fishes in the general complexness of their internal structure, and in their powers of locomotion, and we saw a proportionate high development in their most important organs of sense, the eyes, which surpass those of all inferior invertebrata. This is the case also with their next important organs of sense the ears, which possess a higher development than those of the articulated classes, and closely approximate to the condition of these organs in fishes. We observe, behind and on each side of the great cerebral ganglion in these animals, a depression or cavity in the cephalic cartilage through which the œsophagus passes, and which covers the brain, which cavity on each side is filled by a membranous sac, surrounded by the exterior lymph of Cotunnius, and containing an ento-lymph or thin interior fluid, and enclosing a solid chalky substance composed of the carbonate of lime, and suspended by nervous filaments. The surface of this sac or membranous vestibule has spread upon it filaments of an auditory nerve and numerous bloodvessels. It is thus a more complex organ of hearing than that which we see in the crustacea, by having a solid calcareous substance within the vestibule to receive and to communicate to the acoustic nerves more distinctly, more forcibly, and more uniformly, the vibrations transmitted to this part of the head. There is no external meatus, but the whole of this rudimentary labyrinth is enclosed in the thickest and densest part of the great cephalic plate into which the numerous strong muscles of the arms are inserted. In the *octopus ventricosus* this vestibular bone is conical like a limpet, and of a beautiful rose-red colour on its tapering surface, but white and hollow on the base which rests on the vestibular membrane. It is connected, as in higher animals, to the side of the vestibule by numerous nervous filaments. The ento and peri-acoustic lymph seen here in the vestibule, as in the more complex labyrinths of higher animals, was shown long since in both these situations in the ears of the entomoid articulata. Notwithstanding the magnitude and constancy of this organ in the naked cephalopods, and its presenting the most complex form met with in the invertebrated classes, it is yet reduced almost to its first rudiment or most essential element — the vestibule with its acoustic nerve. In passing up through the vertebrated classes, we observe it gradually developing the semicircular canals and the cochlea, and becoming enveloped in the solid parietes of the cranium; it acquires a tympanic cavity communicating with the fauces by the eustachian tube, and containing the ossicula auditus, which convey the vibrations of the membrana tympani to the vestibule and the whole internal labyrinth; and in the highest forms of the organ a still more exterior meatus auditorius, and complicated moveable concha, are added to complete the instrument.

The fishes, like the cephalopods, have their sensations of sound communicated by the dense watery element they inhabit, the undulations of which strike forcibly their whole head and their whole trunk, so that they little require any external means of concentrating sonorous vibrations nor any complicated internal structure of their organ of hearing. In the lowest cyclostome cartilaginous fishes—as the lampreys, the ear is nearly in the same condition as in the cephalopods, consisting of a shut internal vestibule almost without semicircular canals, and without internal calcareous bodies. The two vestibules are lodged also in depressions at the sides of the cartilaginous cranium, and separated from the cranial cavity by a thin membranous partition, as in the highest of the invertebrata. The soft expansion of the auditory nerve lines the interior of these two vestibular sacs, which have no external communication yet established with the surface of the skull, as we find in most other fishes, by means of a vestibular opening or fenestra ovalis. Here, therefore, as in the articulated and molluscous classes, the vestibule seems almost to form the entire ear.

But in the higher osseous fishes, we observe, in addition to a highly-developed vestibule, containing calcareous bodies and opening externally, large semicircular canals, with considerable ampullæ at their terminations. Those parts of the organ of hearing are not yet enclosed or surrounded by the solid bones of the head, by the temporal bones, but are placed entirely within the general cavity of the skull. There is generally no external fenestra or meatus in osseous fishes, and we observe that the impulses given to the body of the fish through

the medium of the water, are conveyed to the air-bag, and from that forwards to the base of the skull in the vicinity of the ear, and sometimes there are minute bones, solid portions detached from the transverse processes of the anterior vertebræ, apparently with a view to assist in communicating those vibrations of the air-bag to the internal organ of hearing. But the air-bag is not on this account, any more than the skull itself, or the general surface of the trunk, an essential part of the organ of hearing; it is the rudiment of a very different organ, —the respiratory lungs of higher classes, and the detached small bones are the ordinary elements of the anterior vertebræ. Thus, then, we observe, that the impulses given to the water are conveyed to all parts of the surface of the body, and to the walls of the solid skull, in the osseous fishes, and that, not through a foramen, but through the solid bones, these sonorous impressions are conveyed to the interior of the cranium, which is here filled with that glairy, gelatinous, or fatty substance, the developed arachnoid coat, and by this means to the labyrinth and the acoustic nerves. Thus it is that they require no external meatus to receive or to transmit sonorous undulations from the dense element around them, to their internal organs of perception. As they are not inhabitants of the air, they can have no tympanum nor eustachian tube, which form a vibratile drum for air-breathing animals, to convey the gentler undulations of that elastic medium, and for the same reasons they require no exterior concha nor lengthened meatus.

The great size of the semicircular canals within the cranial cavity in the osseous fishes, where they are not yet embedded and confined within the substance of the solid cranial bones, corresponds with the great development which we saw externally in the opercular or tympanic ossicula, which are likewise unrestrained by any tympanic membrane in their extension outwards. Although the whole labyrinth in osseous fishes lies in an open groove on each side within the general cavity of the skull, and is connected only by ligaments to its inner surface, we find the labyrinth in the sturgeon partly buried in the cartilaginous substance of the temporal bone, which envelops the three semicircular canals, and leaves the vestibule still within the cranial cavity with the brain; and in the *rays* the whole labyrinth is at length completely surrounded by the cartilaginous firm texture of the temporal bone,—a position better adapted for receiving and transmitting the most delicate sonorous vibrations, and that position which the whole internal ear preserves from these cartilaginous fishes up to man. The cretaceous substances, generally three in number, found in the vestibule and in its communicating sacculi, are soft and pulpy in the cartilaginous fishes, and of a dense stony consistence in the osseous fishes; they vary in shape according to the species, and form normal parts of the organ in most animals, from the cephalopods upwards through the higher classes of vertebrata, and they are destitute of organization,—like shells, which they resemble in chemical composition. These sacculi of the vestibule appear to form the first rudiment of the cochlea, and a rudiment of the tympanic cavity is seen in the subcutaneous shut passage destitute of air, leading from the surface of the head to the fenestra ovalis in the highest cartilaginous fishes. The auditory nerve comes off separately in fishes from the inferior part of the lobed medulla oblongata below the cerebellum, and sends branches to be distributed on the ampullæ of the semicircular canals, on the vestibule, and on the sacculus or undivided unconvoluted rudiment of the cochlea; so that its branches are most affected by vibrations in these two last cavities by the solid cretaceous bodies they contain, and the semicircular canals are the first parts which become enclosed in the substance of the temporal bone.

The lowest of the amphibia are, like fishes, inhabitants of the water, and are still destitute of a tympanic cavity and eustachian tube, which are developed in those species which lose their gills and leave their original aquatic element. In the perenni-branchiate species, the labyrinth is still imperfectly inclosed in a spacious general cavity of the temporal bone, the vestibule communicates externally by the fenestra ovalis, to which the stapes is applied as in all the higher classes; the semicircular canals and the vestibule, with its sacculus and cretaceous bodies, are formed like those of fishes with the sacculus proportionally small, and the muscles and integuments cover the exterior of the organ without leaving a trace of external meatus; so that the impressions from without are still obscurely conveyed, as in fishes, through the solid walls of the cranium. The same condition of these parts is presented by the larvæ of the caduci-branchiate amphibia, but in the adult state of the frogs and salamanders we observe the semicircular canals already embedded in the substance of the temporal bone, while the rest of the labyrinth is still free in the original general cavity of that bone; the cretaceous substance is a soft white pulp, and a small tympanic cavity, communicating with the fauces and confining

the three small united ossicula, exists between the labyrinth and the surface of the skin. The thin skin forms here a large membrana tympani on a level with the general surface of the head, to the centre of which the bent cartilaginous malleus is attached, and, from the soft condition of the ossicula auditus, the vibrations of this membrane are obscurely conveyed to the fenestra ovalis to which the expanded end of the stapes is attached.

In the serpents the tympanic portion of the ear is still very imperfectly developed, and is covered externally not only by the muscles and skin, but also by the scales of the head; the ossicula are united as in the frogs, and are still cartilaginous at their distal extremity; the semicircular canals are surrounded by the dense petrous portion of the temporal bone; the vestibule is still lodged in a capacious cavity, and its sacculus contains a large and solid cretaceous body. The tympanic cavity is much larger in the saurian reptiles, and is covered externally by a thin, transparent, convex, and naked membrane, generally on a level with the surface of the head, so as yet to present no external meatus. This cavity communicates freely with the fauces, and by means of the fenestra ovalis with the labyrinth, which still presents a rudimentary undivided cochlea with a solid calcareous substance. The stapes continues to be the principal ossiculum ossified in the tympanum, and the tympanic cavity begins to assume a tubular form towards its exterior membrane. The membrana tympani is still covered in some of the sauria by the ordinary scales of the skin, in most it is quite naked and exposed, and in the most elevated forms of this order it begins to be protected by marginal external folds forming a rudimentary concha, as you observe in the alligators, crocodiles, and gavials. The internal parts are nearly in the same condition in the chelonian reptiles, which present a more lengthened and narrow tympanic cavity covered externally by the common loose integuments of the head and communicating with the fauces by a wide eustachian tube; the cochlea is also here more distinctly developed than in the lower orders of reptiles, and is the part of the internal ear which is the last to assume its normal character and development.

In the highly developed, hot-blooded, quick-moving feathered inhabitants of the attenuated air, all the apparatus of this complex acoustic instrument are more perfectly developed than in the cold-blooded slow-moving animals beneath them. The dense bones of their solid skull envelop every portion of the internal ear with a vibratile shell of flinty hardness. The semicircular canals, so large in fishes, are here reduced in dimensions, with enlarged ampullæ, the vestibule is lengthened, and the cochlea begins to assume the spiral form. This imperfect cochlea still contains a remnant of the cretaceous bodies so large and numerous in the corresponding part of the labyrinth of fishes. The tympanic cavity, lengthened like the vestibule, has here an external meatus beyond the convex membrane to which the outer end of the anchylosed tympanic bones is attached, and this drum of the ear has its dimensions increased by the numerous cranial cells which now communicate with its interior. The short external auditory meatus removes the membrana tympani from the surface of the head, and the exterior concha—the last part of the organ to be developed, begins to present itself as a simple crescentic fold of the skin extending upwards from the margin of the external meatus. This rudimentary concha, exterior to all the complex apparatus of the labyrinth and tympanum, begins to manifest itself in those birds which require most to employ these organs of sense. Those nocturnal predaceous birds which we have seen to be so remarkable for their large eyeballs and their enormous pupils to receive as much light as possible in the twilight, have a high crescentic fold on the upper and back part of the ear, which is the only rudiment of the external concha yet developed in this numerous and highly organized class. It is yet, however, extremely imperfect; a simple membranous fold, the circumference of which is increased in extent in some of the owls by the feathers which radiate from around its free margin.

We thus arrive at the most perfect condition of this complex and mysterious organ of sense in the class mammalia, where all its essential elements have attained their full development. The petrous portion of the temporal bone, of great density, embraces closely all the most important parts, and the membranous canals, highly vascular and delicate, form an ento and peri-lymph, thin, transparent, and colourless. The ampullæ are often small, and also the irregular cavity of the vestibule containing generally two small cretaceous substances intimately connected with the extremities of the nerves. The cochlea, which most marks the increased development of the whole organ, has here assumed its most complex and turbinated and divided form. The tympanic cavity communicating with the fauces by a lengthened eustachian tube, and bounded externally by a concave thin

fibrous membrane, contains a series of four ossicula, articulated moveably with each other, and provided with distinct muscles. The external meatus is increased in length, defended by hairs and an acrid secretion, and is provided with an expanded concha variously developed, and destined to collect the sonorous vibrations and direct them to the internal organ. This last developed external accessory part, the concha, is still often small or wanting in the inferior mammalia, especially in the aquatic species. The cetacea have only a small winding perforation leading from the membrana tympani to the surface of the head, and often scarcely to be perceived upon the surface of the skin. In seals and walruses we still perceive the imperfect development of the concha, and in beavers and otters and most of the diving animals we still observe this external part but imperfectly developed. As we ascend, however, through those tribes of mammalia that live more exclusively upon the land, we observe the concha acquiring greater magnitude and symmetry, and the means of varied and extensive motion. It is most developed in magnitude in the feebler herbivorous quadrupeds where the cerebral centres are small, and least in the carnivora where the brain is large. It is large in the bats and nocturnal quadrupeds, and we observe it in the quadrumana, especially in the orangs, acquiring the short round form and motionless character of the human concha.

The organ of *smell*, destined to convey impressions of odorous particles diffused through the medium in which animals live, is more difficult to determine than that of sight or of hearing in the inferior classes of animals, and appears to be less important for their preservation and less general in its occurrence throughout the animal kingdom. The air-breathing annelides have been supposed to feel odours by their mouth or by the lateral pores of their air-sacs. The sense of smell, so delicate in insects, has also been referred to the same situations, or to the delicate extremities of their long flexible antennæ, and the inner pair of these organs in the crustacea have been considered as the seat of the same sense. The labial appendices of the conchifera, the entrance to the respiratory sacs of pulmonated gasteropods, the highly sensitive tentacula covered with a delicate mucous membrane, and even the whole surface of the skin in the more elevated molluscous classes, have been considered as the organs through which these animals receive impressions from odorous emanations.

In the class of fishes, we observe the organ of smell to be only a depression excavated on the anterior part of the face, but it does not communicate behind with the mouth, or the respiratory organs, or the interior of the body. We observed already, that the olfactory nerves of fishes, provided with their large olfactory tubercles, and arising from the rudimentary hemispheres, perforate the part of the skull corresponding with the cribriform plate of the ethmoid bone. They then spread upon numerous closely applied laminæ, covered with a very extensive mucous membrane, and these numerous folds of the pituitary membrane are more or less exposed upon the surface of the head. A fold of the integuments, however, supported by a plate of cartilage, often hangs over the middle of this open cavity, dividing its entrance partly into two, as you observe in the rays and sharks; but by lifting up this fold, you observe that on each side of the head it has but one opening on the surface of the face, and that it does not, as in air-breathing classes, communicate backwards with the mouth. By the motions of the fishes through the water, they are sufficiently exposed to receive impressions of odorous substances diffused through that medium, without drawing the dense water through those delicate organs for the purposes of smell. Perhaps the volumes of water necessary to be carried continually through the mouth of fishes for respiration are too great, and would prove too powerful a stimulus to have passed through such an organ of smell, and to have allowed that organ to retain its necessary delicacy, and, therefore, it is quite apart from the passage through which that element is taken in for respiration in all water-breathing animals. It is obviously, however, an organ in fishes of great delicacy and importance, and is of great size, provided with very large olfactory nerves, and large olfactory tubercles, coming off alone from the hemispheres of the brain. In most osseous fishes there is an anterior and a posterior aperture leading into each nostril from the upper part of the muzzle. In the plagiostome fishes, the nostrils open each by one orifice on the under part of the head; and in the lampreys, both nostrils open by a common orifice on the upper part of the head. Some of the eels approach to the lowest amphibia, by having the posterior orifice of their nostril placed under the upper lip.

In the amphibious animals, where the respiration of air begins to take place through the nostrils, the olfactory apparatus begins to be more complicated and concealed. The cartilaginous laminated portion of the fishes begins to assume now

the more compact and convoluted form which the osseous plates in the higher animals afterwards present. The surface of the organ thus increases in extent, as we ascend through the reptiles and through the birds to the mammalia. In the perenni-branchiate amphibia, the nostrils form still on each side a simple sac, scarcely complicated internally, and having their posterior opening so far forward in the mouth as to be immediately under the upper lip. In the salamanders and frogs, the nostrils are still, in the larva state, confined to the exterior of the head, as in fishes; but in the adult form the posterior openings, though within the cavity of the mouth, are still much advanced in their position, and remote from the median line. The exterior nares have now almost lost their cartilaginous valve, but the turbinated bones, even in a cartilaginous form, have not yet begun to extend the interior surface of the organ. The nostrils of the proteus are laminated, as in a fish.

In the serpents, the internal surface is extended by the rudimentary turbinated bones, and by an enlarged nasal cavity, opening posteriorly both by a common orifice on the median line. The olfactory cavity is increased in the sauria, where the turbinated bones begin to be strengthened by ossific matter, and to assume a more convoluted form; both the anterior and posterior openings of the nares present enlarged dimensions, and the whole organ is more internal and more protected by the expanded nasal bones. The organs of smell are still more protected and concealed, however, in the solid head of the chelonian reptiles, where their surface is increased in extent, and their posterior openings are placed further back from their primitive anterior aspect. The anterior openings of the nostrils are here very small. The olfactory nerves, and the whole organs of smell, are small in birds. The anterior openings are large and oblique for respiration during their rapid movements, and the various forms and positions of these apertures present useful characters to the distinction of species. The turbinated bones are larger than in reptiles, though still but partially ossified, and the olfactory nerves pass through the orbits into the nose. The defective development of this organ is compensated for in some by the extensive distribution of the fifth, or trifacial nerves, on the upper and lower jaws, and in most by the great development of the organs of vision. All the internal parts of the organs of smell become more complex and elaborate in quadrupeds, new cavities open into their interior, as the frontal, maxillary, and sphenoidal sinuses, and the exterior nares assume a more lengthened and expanded form. Most of these animals we observe to have all the nasal cancellated bones of great size, and presenting an immense surface, both on the ethmoid and turbinated bones, for the distribution of the olfactory nerves, and we perceive in them a corresponding increase of power in their sense of smell. We perceive this in many carnivorous quadrupeds that pursue their prey by the sense of smell through all their windings and concealments, or seek them by night. The diving quadrupeds have, for the most part, the exterior opening of the organ of smell protected from the dense water through which they swim, by a valvular structure. This valvular form of the nostrils we see in most of the cetaceous animals, where they are often prolonged in the form of a double sac, as you see in this porpoise. This closed valvular structure of the exterior nares we also see in the beaver, in the seals, and many other animals which move rapidly through that dense and resisting element. Where the hemispheres of the brain are largely developed, the olfactory organ, like the other organs of sense, is comparatively small, as we see in the quadrumana and man.

The organs of *taste* are situated in the mucous membrane and the papillæ of the tongue and mouth, and are adapted to convey to animals a knowledge of many of the properties of sapid bodies applied to these parts; so that like the other organs of sense, they are placed where they can best watch over the materials conveyed into the alimentary canal, and their gratification forms an incentive towards supplying the necessary wants of the body. According to the extent and delicacy of these parts of the mouth, and their vascularity and sensibility, we perceive the organ and the sense of taste to be developed in animals. It is difficult to conceive animals with a mouth or stomach without supposing that they derive some sensations of taste from the substances they introduce as food into these cavities, and such sensations have been ascribed by Ehrenberg even to the polygastric animalcules.

But the most general sense in animals is that of *touch*, of which all the others may be mere modifications. It is situated in the highly vascular and sensitive surface of the skin, which covers and protects the entire machine, and which is itself shielded by the cuticle and rete mucosum which it exudes upon its exterior surface. This most general of the senses relates to the most common physical properties of bodies, and we can scarcely conceive an animal to be capable of providing for its own subsistence and the continuance of

its race without being endowed with this common property of feeling,—without being capable of receiving some sensible impressions from the contact of surrounding objects. The effect of those impressions in exciting perceptions of touch, must greatly depend upon the delicate structure and sensibility of the parts with which the external objects come into contact; so that in the naked and soft forms of invertebrated animals we must naturally expect, ceteris paribus, the sense of touch to be most general and most acute, and those which have the surface of their bodies covered with dense substances will necessarily possess a much less acute sense of touch, though their other organs of sense may enable them, by the delicate sensibility which they retain, to provide for all their necessary wants. Indeed we observe, even from the polygastric animalcules, that organs are developed at the anterior part of the body which appear to be adapted to communicate sensations corresponding with those of touch in the higher animals. They have long *cilia* almost already developed into tentacula, and those *tentacula* so common in the class of zoophytes appear to be endowed with great delicacy of feeling. These fleshy and sensitive tentacula and tubular fect of the radiated animals continue up through many of the succeeding classes of animals, becoming jointed in the articulated classes, where they form *palpi* and *antennæ*; and in the soft molluscous classes they again assume the form and name of *tentacula*,—soft, sensitive, and fleshy, without any jointed appearance. We observe remnants of those sensitive organs even in the class of fishes in the form of processes or filaments still disposed as organs of touch around the mouth.

In the vertebrated classes of animals we observe a great difference in the sensibility and exposure of the exterior surface of the body to impressions of touch. Many fishes and higher animals are covered with dense scales, which must deaden the general sense of touch over the surface of their bodies. Other fishes have the lower part of the head, the lower part of the abdomen, the circumference of the mouth, and other exposed parts, covered with a naked, delicate, and soft integument, which will compensate for the want of development of the arms and hands as organs of touch. But in the land amphibious animals, and in all the higher vertebrata, we observe the anterior extremities to become more delicately organized, and fit for communicating delicate impressions of the forms, densities, temperature, and other physical qualities of external bodies; and in proportion to the high nervous sensibility, the vascularity, the flexibility, and the softness of the hands and other external cutaneous parts, will that common sense of of touch become increased as we pass up through the vertebrated classes to man, who surpasses all inferior animals in the exquisite and equal development of all his organs of sense, and in the perfection of all those higher organs of relation by which animals are more immediately connected with outward nature.

USE OF

PLASTER OF PARIS

IN THE

TREATMENT OF FRACTURES.

To the Editor of THE LANCET.

SIR,—The extensive circulation which your Journal so deservedly enjoys, affords us the best means of communicating to the medical profession a mode of treating simple oblique fractures (particularly those of the thigh), which, although not unknown, has never hitherto been brought into practice. The mode of treatment alluded to is, that of confining the limb by means of plaster of Paris. A recent successful case induces us to submit the subject to the consideration of the profession, at the same time anticipating a difference of opinion as to the expediency of the plan. We recollect, indeed, reading an article, some time since, in one of the medical periodicals, in which a method, proposed for treating fractures with plaster of Paris, was strongly condemned by the editor as *impracticable* and *injudicious*; but as we have heard Baron Larrey say, that during the Egyptian campaigns of Napoleon, he had with benefit employed it in small quantities round fractured limbs, with the idea of preventing irritation during travel, we considered it might be tried without incurring a charge of rashness.

—— *Tinney*, of Walton, near this place, æt. 19, of muscular habit, in the month of December last, broke the right femur, in the upper part of the lower third, by a fall from a cart. The patient was put in Mr. Amesbury's splints. On the following day, the limb being much shortened, gradual extension was made; the pulleys were used a second and third time during the five following days, notwithstanding which the ends of the bones could not be kept in apposition, from the extreme obliqueness of the fracture. Finding, on the sixth day after the accident, that it would be impossible to prevent a shortening of

the limb, we determined on the application of the plaster of Paris. A deal box or trough was prepared, six inches in depth, and of sufficient length to take the whole of the limb from the pelvis, and in this box the leg was placed. A hole being made through the end of the box to admit of the pulleys, and the limb being strapped with soap-plaster from the heel to the nates, and well smeared with oil, extension was made from the foot, and the fractured bones were brought in apposition. The plaster of Paris, in a liquid state, was then poured into the box, until it covered the limb to the depth of an inch.

To guard against possibility of inconvenience from tension, as soon as the plaster on the surface had assumed such a consistence as to admit of its being divided by a spatula, a groove, an inch and a half in width, was made in it on the anterior part, extending the whole length of the limb, so that any change which took place might be distinctly observed. The plaster, of course, within five minutes from its first application, assumed a perfect consistence and hardness, and thus the limb remained during five weeks, at the end of which period the apparatus was removed, and the leg found to be perfectly straight and not shortened. The box and plaster mould we have sent to the College of Surgeons, where it may be seen. On inspection of the mould it will be obvious, that, if necessary, the plaster could have been at any moment removed from the limb without the slightest inconvenience to the patient, and in much less time than a bandage.

It has been suggested, that the heat given out by the plaster during the process would be so great as to prove inconvenient; this, however, is not the case. The only inconvenience which arose from the last time of reduction till the union of the fracture, was a little tenderness of the skin, just over the tendo achillis, produced by the web of the pulleys being moulded with the limb, which in future might be avoided by slackening or removing it after securing the thigh.

In consequence of the success which attended this experiment, we have since made several moulds, and are so thoroughly convinced of the superiority of the plan of treatment, that we should not hesitate to apply it to compound fractures. As these observations may, we hope, induce other surgeons to adopt this practice, a few hints will not, perhaps, be wholly undeserving of attention. By mixing *chalk* or *whiting* with plaster of Paris, the composition remains from four to ten minutes, according to the quantity of chalk used, as manageable with the trowel as common mortar. The limb being placed on a board, and extension kept up gradually, till the fracture be reduced, a tolerable quantity of the plaster of Paris and whiting is to be placed far enough round the thigh to include the trochanter major, and to pass between the pubes and scrotum, the latter being protected by means of oiled lint. These two resisting points being secured, the condyles of the femur are to be managed in like manner; the operator may then cover the thigh as much as he pleases in a *simple* case, but in *compound* fracture the plaster should merely be applied so as to unite the points of resistance at the groin with those at the knee. As by possibility inflammation or erysipelas might supervene, the two bodies of plaster of Paris above and below, covering the limb, should be united with a greater or less quantity of the plaster, according to the injury done to the soft parts, so as to admit conveniently of the application of poultices or lotion in case of need.

In fractures of the upper third of the femur, if the bent position should be thought necessary, a single inclined plane will be found most easy to manage, by making extension from the *foot*, the pulleys being fastened to the ceiling; but should the comfort of the patient require relaxation of the flexors of the leg, the condyles might be secured first, and the knee bent afterwards. We have alluded more particularly to fractured *thighs*, as they are the most unmanageable, and most often the cause of shortened limbs.

Although the detail of this mode of treatment has necessarily encroached somewhat on your valuable columns, we hope it will not be thereby inferred, that in its application it is attended with more than ordinary trouble to the operator; on the contrary whilst the benefit to the patient is so great the surgeon will not find it consume more of his time than the ordinary and more familiar method. This remark arises from the desire we feel to obviate every objection which might be urged against the remedy; but we are confident that the members of our profession are far too alive to the calls of suffering humanity, to allow personal inconvenience to influence them in their selection of a remedy.

Before concluding, we may express our opinion that, in fractures of the neck of the thigh bone, motion of the limb would be more readily prevented by confining both trochanters by means of the plaster of Paris than by any other plan hitherto adopted.

We are, Sir, your obedient servants,

BOND AND GALE, Surgeons.

Glastonbury, Somersetshire.

CASE OF

INJURY OF THE HEAD.

By JOHN GREENING, *Esq., Surgeon, Worcester.*

MASTER BAKER, æt. 10, respectably connected in the city, was put under my care June 26th, 1833, in consequence of an injury which he had received by a fall from a horse which had run away with him. His head and face were much bruised, the scalp was torn to the extent of six inches across the parietal bone, and the pericranium was denuded to a considerable extent; no fracture of the skull could be detected; he was perfectly senseless, his power of motion was nearly abolished, and he had sickness; the pupils were not obedient to the stimulus of light, the pulse was slow, labouring, and slightly irregular; the surface, but more especially the extremities, were cold, and there was considerable loss of blood. The symptoms indicated that great concussion of the brain had taken place. He was put to bed, and bottles of hot water were applied to his feet. After the wounds had been well cleansed from all gravel and dirt, they were dressed with adhesive straps and lint. At 9 o'clock p.m., being about four hours after he had received the accident, he was more composed, and his extremities were warm; pulse 98. V.S. ad ℥x; continue the warm bottles to his legs and feet. Diet, water-gruel or weak tea. Head to be kept high.

27. Pulse quick, 120 in a minute; had a restless night; tongue moist; heat of surface slightly increased. ℞ *Hyd. Submuriat.* gr. iij.; *Pulv. Jalap.* gr. xv. M. et divid. in chart. iij. Capt. 1 2da quaque hora cum coch. ij larg. mist. ℞ *Inf. Sennæ* ℥iv; *Magnesiæ* ℥ss; *Tinct. Sennæ* ℥ij. M. 9 o'clock p.m. Bowels have been moved three times, pulse softer; sensible when roused.

28. Rather better; ordered to continue the medicines; pulse 110; does not complain so much of pain in the head, nor is so drowsy; when I showed my watch he could tell the hour of the night.

29. Had a comfortable night; pulse 100; tongue red at the tip and edges; his bowels are freely open; a quantity of offensive and bloody serum is discharged from the wound; let a bread-and-water poultice be applied over the dressings.

30. Says he is better; pulse 100, soft; tongue moist. Continue the poultice. Vespere, 11 o'clock. Not so well; great thirst, and feverish; pulse 120; bowels not open since last night; does not complain of pain or light affecting his eyes. Removed the dressings; there was a good deal of discharge from the wound. Continue the poultice; let his diet be low. Rep. medicament.

July 1. Says he is much better; the opening medicines have operated three times; the discharge from the wound is of a dark colour and offensive; not so feverish; tongue presenting a white fur; pulse 100. Continue the poultice night and morning.

2. Had a good night; wound of the scalp looks better; take one dose of the opening mixture.

3. Going on well; the wound looks healthy; slough thrown off.

4. The wound is suppurating very nicely; bowels open; pulse 100; passed a comfortable night. Continue poultice.

5. Continues to improve. That portion of the pericranium which was not denuded from the cranium is shooting forth in a beautiful manner over the bare bone. Perstat.

6. Perstat.

7. Pulse 98 and regular; bowels open; tongue clean; his diet has been very low ever since the accident, no animal food having been allowed him, and his drink has been toast and water. Wound going on well; continue the dressings.

8. Leave off poultice. The wound dressed with sticking-plaster and simple ointment spread on lint. From this time up to the 15th, when he left his room, nothing particular occurred.

16. Wound healthy, bodily health good. No exfoliation has taken place; granulations are shooting over the bone in a beautiful manner; the bloodvessels of the bone are filled with red blood, as if nature intends to give the bone a new pericranium. It occurs to me that the existence of bare bone does not necessarily entail exfoliation.

28. Nothing has occurred since the 16th which requires any notice. The wound has been regularly dressed; his diet and bowels have been attended to.

August 10. Wound looking healthy; granulations rapidly spreading forth through the bone, and his health improving.

20. A piece of the outer table of the skull has exfoliated, of the size of a shilling, and as thin as a wafer. It appears that this small portion received a greater injury by the fall, as it became black in a few days after the accident. The extent to which the cranium was deprived of its pericranium when I first

saw him, was as large as half the palm of the hand.

September 4. His health continues to improve; wound nearly healed. Perstat.

11. Quite recovered.

Bridge-street, Worcester,
July, 1834.

COURT OF COMMON PLEAS, GUILDHALL.

LONDON, *Tuesday, July 8th*, 1834,

Before LORD CHIEF JUSTICE TINDAL *and a Special Jury.*

PURSELL *v.* STEPHENS *and another.*

Counsel for the Plaintiffs—Serg. WILDE and ATCHERLEY and Mr. FITZROY KELLY.

Attorneys—Messrs. LOFTY, POTTER, and CROWE, King Street.

Counsel for the Defendants—Serg. TALFOURD and CROWDER.

Attorneys—Messrs. BICKNELL, ROBERTS, and FINCH, Lincoln's Inn.

Mr. Sergeant WILDE opened the pleadings. The action was brought against John Stephens and Thomas Moat, the former being the printer and publisher, the latter the proprietor, of a paper called *The Christian Advocate*. Mr. Moat is also a partner with a person named Morison, who had been much before the public lately, advertising a quack medicine called "universal medicine." The action was brought for a libel, published against Mr. Pursell, in an advertisement of Messrs. Morison and Moat, in the newspaper in question. The plaintiff, Mr. Pursell, a surgeon and apothecary of great respectability at Stockbridge, was called upon in the course of his profession to attend a little boy who had become very ill in consequence of having been held over some offensive matter, either in sport or mischief. The father of the child applied to Mr. Pursell, saying that the child was "sick at the stomach," and requested some medicine, which was accordingly forwarded. A few days afterwards Mr. Pursell was requested to see the child, whom he found much disordered from the nature of the offensive matter over which he had been held suspended with his head downwards, and which had caused a determination of blood to his head. After the child had been ill for some time, he began to mend, and ultimately recovered. The parents of the child, who manifested all the feelings which would belong to such relationship, had been perfectly satisfied with the skill and kindness of Mr. Pursell. Mr. Pursell was, however, surprised to find himself attacked in the before-mentioned newspaper, wherein he was referred to by his initial letter as "Mr. P.," and an account was given of his attendance on the child, and his mode of treatment. It appeared that Mr. Morison, the partner of Mr. Moat, and one of the persons engaged in vending these medicines, sold them at a place in the New Road called the "British College of Health," Mr. Morison being styled the "president," and Mr. Moat the "vice-president." There are always found persons weak enough to be charmed with something that is new and extraordinary. It appeared that Mr. Morison being in the habit of having a very splendid equipage down in Hampshire, a lady there, a Miss Tomkins of Broughton, was very active in recommending the medicine of Mr. Morison, and had taken a very decided aversion to the medical men practising in those parts, Mr. Pursell among the rest. This lady, during a part of Mr. Pursell's attendance on the boy, occasionally visited him, and, as it was stated, when the child was getting better, administered some of those "universal pills," called "*universal*," he supposed, because just as good for one thing as another! In consequence of this an account was sent to the newspaper, and it was supposed the account had come from this lady. Application was made for information, and the following letter was received, by which it would appear that the attention of the defendant Moat particularly was called to the libel—the injurious nature of which could not be doubted. The defendants, however, instead of doing justice to Mr. Pursell, dared him to proceedings, and continued to publish the libel, notwithstanding they knew that Mr. Pursell had complained of it, and was determined to vindicate his character. The letter was dated from "Hamilton Place, New Road, London, 26th of November, 1833:"—"Mr. Pursell,—Sir, We are surprised to find that you threaten to prosecute Miss Tomkins, of Broughton, for an alleged libel on your character in the case of Ray's boy, charging her with the crime of furnishing us with the means of that publication"—[Mr. Pursell's object being the vindication of his character, he had applied to the individual whom he supposed to be the writer of the article which furnished the materials of the libel],—"charging her with the crime of furnishing us with the means of that publication. Whether your gallantry as a gentleman will be

elicited by your threats upon a young lady, who, were she proved to be the directress on pure principles of philanthropy, could not add much to your triumph, is for you, Sir, to determine; but we, as men, would rather meet you face to face, than be obliged to cut behind the scenes." [By which they meant, rather than bring your action against Miss Tomkins, and force us to defend her, bring your action against us.] "If your cause is good, you need not fear broad daylight. Who is Mr. P.?" [The libel spoke of the attendance on a boy named Ray, and gave a description of the medical person "Mr. P." Mr. Pursell was a gentleman well known.] "Who is Mr. P.? You have no right to assume that you, Mr. Pursell, are the person meant; if you were afraid you should not be known as the same, you do right to exhibit as a prosecutor, and we shall be obliged by your indulging us with the promised intended notoriety. We are, Sir, yours, &c., Morison and Moat." That was the answer to the complaint. Further application was made, which was answered in the same way. The learned counsel here called attention to the nature of the libel. It imputed to a medical man everything which can injure him,—great ignorance, great want of attention, and great want of humanity, and described him to have conducted himself in such a manner as to render himself unworthy the confidence of any respectable individual. It was entitled "British College of Health, New Road, King's Cross, London. From a correspondent in Hampshire. A dreadful instance of cruelty and maltreatment, practised on a poor child, by one of the faculty." That was the general description of Mr. Pursell's treatment of the boy. "G. Ray, a child, about thirteen years of age, was on Saturday, July 6th, 1833, cruelly exposed to the influence of malaria, which produced much giddiness of the head, accompanied by sickness, which prevented his keeping food on his stomach. His mother, imagining that he was going to have the small-pox, did not attend to what he said was the cause of it, and indeed, at first, she thought he might have been drinking too much beer." Then it said, this went on till "Friday, when Mr. P. was sent for. He did not come, and was sent for again, but instead of coming, he sent six leeches to be applied to the temples, lotion to keep the head wet, with four powders to be taken three times a day, and mixture twice a day. Everything was done as directed, but Mr. P. did not see the child till Tuesday the 16th; he then came and brought twenty leeches and twelve more powders. Since Mr. P.'s orders had been attended to, the poor child gradually became worse, he was unable to rise from his bed, was very feverish, and at times delirious; the vomiting ceased, but a complete loathing of food succeeded. When moved, his head was in a state of extreme agitation, a constant thirst came on; skin very dry; no urine was passed hardly; breath short, with frequent cough and wheezing on chest; violent purging day and night. Notwithstanding all this, Mr. P. put on thirteen more leeches on one side of the head, and six or seven on the other. The powders and lotion were to be continued, but not the mixture; a very large blister had been applied to the back. No food of any kind was to be given for a week, not even a spoonful of milk in his tea, no toast and water, nor any fruit. On Wednesday the 17th," the writer said, "I saw him; Mr. P. had again put on ten more leeches, applied mustard plasters to the feet, head was to be shaved, and ten leeches to be applied on any part of the head; daily powders and lotion to be continued." The writer then went on,—"On Monday the 22nd, I saw him in the evening after his mother had applied the leeches as usual, but the child was so dreadfully exhausted, she could not make up her mind to put on more than seven. By night the child was in such a sinking state that it did not seem possible he could live till morning, which made the mother form a strong resolution not to give the third powder that night, and if the child lived never to give him any more of Mr. P.'s medicine nor follow his directions in any way again."

Thus the object of the plaintiff's visits having been answered in the restoration of the child, the fact of the mother sending to him to say, he need not trouble himself again, was stated as a ground of dissatisfaction on the part of the mother. The letter went on to state,—"Being satisfied that nature was doing her part to restore the vital powers, I offered to assist in administering a little of the "Universals," or rather to direct what dose should be given, and what other means should be used to restore strength, which offer was thankfully accepted by the poor mother, and I ordered that he should take one mild pill, have his head, hands, feet, &c. washed well with warm water, and the blister which was very bad, washed and dressed with the "Universal Ointment." Here came a detailed account of the treatment of the child. It then said, "On Tuesday afternoon Mr. Pursell had been, and pronounced the child worse, and in more danger than when he saw him last, squeezed his back where the blister had been, made the child cry, and then said,

There is something wrong there, he must have another blister on the same part, and ointment to keep it open; leeches, powders, and lotion, the same as before."

It then stated the mother to have declined pursuing Mr. Pursell's remedies, and to have told Mr. Pursell she should not "attend to his orders any more, for she did not believe he had tried to cure her child." At last it described the plaintiff as leaving in anger, because the child was getting better; and, further, what if it had been true would have reflected the deepest disgrace on the plaintiff. It was said he afterwards told a person of the name of Judd, the master of the boy, that "he could have cured the child long before if he had been sure he should have been paid for it." Then followed the further progress of this till the child's perfect cure under their "Universal Medicines." The same spirit which led to the publication of this libel, led to its active circulation. The lady's attention was challenged to this article. She applied to Messrs. Morison and Moat, who wrote the insolent letter referred to; an action was brought, and undoubtedly to the plaintiff's surprise, he found that every word of the libel was justified. They continued to impute, and professed themselves able to prove, every tittle of the libel. The cause was coming on for trial with no slight portion of anxiety on the part of Mr. Pursell, for whatever Messrs. Morison and Moat should think of "a love of notoriety," the jury would feel that when a medical man is charged with want of attention and humanity towards patients under his care, that such a case calls for public vindication of his character. If the poor could not rely upon the character of medical gentlemen, sad indeed would be their condition. Nothing would tend so much to create disgust towards a medical man, as the conduct imputed to Mr. Pursell. The plaintiff, therefore, sought for an explanation, in order to restore himself to the good opinion of those in whose judgment he might have suffered, and found himself called upon, more particularly considering the temper and manner in which he was attacked, to bring the present action. As the day of trial approached, having had the benefit of holding out that they had justified (after the state of anxiety in which such justification might put a respectable individual), the 3rd or 4th of July (last Friday) the summons was taken out, in order to withdraw all these justifications, and now they were in court to assess the damages which the plaintiff ought to receive for the publication of such a libel. Ever since the action they had gone on publishing the libel, for such medicines could only find a sale by the old trick of publishing the vast number of cures they have effected. It was sold as late as the 18th of June, and headed "British College of Health, New Road, King's Cross, London;" then came "From a Correspondent in Hampshire:—A dreadful instance of cruelty and maltreatment practised on a poor child by one of the faculty." Mr. Stephens and Moat, the proprietors of the *Christian Advocate*, were the nominal defendants, the real defendant being Mr. Morison, who pretended to be able to justify. In a case of this sort, brought by an individual, slandered as the plaintiff has been, it was no easy matter to know how to conduct the case on the part of the plaintiff. The publication is admitted. The defendant was still unsatisfied, and wished it to be pleaded there was some foundation. Mr. Pursell felt that he ought no longer to sit quietly down with such an imputation. The defendant's disposition to injure the plaintiff was clear enough. He (Sergeant Wilde) understood the lady was in attendance also; what use was to be made of her attendance he did not know. He could hardly comprehend what course the defendants mean to take after having taken the line of proceeding to which he had referred. He would now place witnesses in the box, and hoped that ample justice would be done, and that the jury would not let the plaintiff fall a sacrifice to this wanton and malicious attack.

The libel was put in and read, dated Monday, October 7th, 1833.

Evidence for the Plaintiff.

George Ray, senior, examined. Am a labourer at Broughton, about three miles from Stockbridge in Hampshire; have a son called George, about thirteen years of age. In June last he was in the service of a person named Judd, at Broughton, and worked for him. I remember on a Saturday in that month the boy coming home unwell.

Mr. Sergeant TALFOURD. If my friend is about to give evidence to show the falsehood of these statements, I must object.

Mr. Sergeant WILDE. We call this witness to show that the plaintiff attended as soon as he was requested.

Mr. Sergeant TALFOURD. It is not competent for my friend to enter into that inquiry; your Lordship sees the probable consequences to which it would lead.

Mr. Sergeant WILDE. I know my friend will not offer any frivolous objection.

Harriet Ray examined.

Am the mother of George Ray. Mr. Pursell was the medical gentleman who

attended him. Miss Tomkins came frequently to see my son; she took an account day after day of what took place; she is the person who recommended Morison's pills. My son had been getting better four days before she recommended the pills; have seen Miss Tomkins since, but not lately. (A pamphlet was here handed to the witness, the "Eighty-fifth series of Cases of Cure by Morison's pills.") This is my book, and was given to me by Miss Tomkins; have been asked by that lady respecting the evidence I should give, and requested to swear to what was in this book.

Mr. Sergeant TALFOURD here rose and objected to this evidence.

Mr. Sergeant WILDE. The lady is introduced as taking a great interest in the child's welfare; we wish to show the real reason under which the party acted.

Mrs. Ray's evidence continued. Have seen Mr. Moat at Broughton; it was when a jury was called upon some children. Miss Tomkins was with him.

George Ray junior, examined.

Am the boy that was poorly; am the son of George Ray senior. I never took any of Morison's pills; took powders and physic from Mr. Pursell, and got well afterwards.

The following letter, written by the defendant Stephens, was now put in and read, it was dated Red Lion Court, Fleet Street, Jan. 8th, 1834, and was addressed to Messrs. Lofty, Potter, and Crowe, plaintiff's solicitors:—"Gentlemen, having given you all the information that was on my part necessary, I can only refer you to Messrs. Morison and Moat, from whom I received the paper in question, and who being, as I conceive, gentlemen of the most honourable intentions, I never deem it necessary to scrutinize the advertisements they send me for insertion in the *Christian Advocate*, and always return the original manuscript to them. I fear not your threats of action, and will only answer your further inquiries in a court of justice."

Henry Giles Lyford, examined by Mr. KELLY.

Is a surgeon at Winchester. Mr. Pursell resides eight miles from Stockbridge. Mr. Pursell has been a surgeon at Stockbridge, or in the neighbourhood, about seven years; believes the paper containing the libel has circulation in that part of the country; has seen it occasionally in families where he attends. In his neighbourhood the publication was generally known to relate to Mr. Pursell, to whom he had heard many persons apply it, and say it could be no one else—both gentlemen in the medical profession and the public in general. It excited a good deal of attention at the time.

Cross-examined by Mr. Sergeant TALFOURD.

Practises at Winchester. Could not say in how many houses he had seen the *Christian Advocate*, but heard it conversed about freely in Winchester and its neighbourhood; it was the topic of conversation all over the place; only saw one paper in which it was published, that is, the *Christian Advocate*. Had seen perhaps a dozen impressions; had one sent him; does not know who it came from.

Lord Chief Justice TINDAL. One containing that article?—Yes, my Lord.

Who sent you that you don't know?—No, my lord.

Samuel Pursell senior, examined by Mr. Sergeant ATCHERLEY.

Am the father of the plaintiff, who is a surgeon residing at Stockbridge, but educated in London. Purchased some pills on the 18th of June, with which a pamphlet containing the libel was given to me. Purchased some pills, and had a pamphlet given me with them on the 6th of June last in Farringdon Street, at Salmon's, an agent; purchased some pills also at Sulme's, another agent, when another pamphlet was given me.

Cross-examined by Mr. CROWDER. Was not requested by my son to purchase the pills; asked for the 85 series, and they were given me.

Mr. Sergeant WILDE. Here is the rule, my Lord, to plead several matters the 31st of January; here are the pleas, which I presume need not be read, which justify every part of the libel, with the exception of the rule. The action is brought in January, and the publication is in October; the summons to withdraw the justification was taken out the 2nd of July. That will be the plaintiff's case, my Lord.

Mr. Sergeant TALFOURD now opened the defendant's case. He did not seek to deprive the plaintiff of the benefit of sympathy for his feelings, but there was a part of the cause in which the defendants had acted rightly, namely, in reference to that which the letter of the 26th of November disclosed,—that they had taken on themselves, in the course of that series of cases which they were publishing, to publish something they had received from a correspondent in the country, which correspondent, it had been suggested, was a lady living in the village of Broughton. These gentlemen wished to see Mr. Pursell face to face, and personally to suffer all the indignation which his learned friend might

be instructed to cast against them, rather than expose the correspondent who had so trusted them. Whatever view might be formed as to their discretion or indiscretion on the other parts of the case, it must be quite obvious to any one, that this was a statement which had been sent by some enthusiastic person in the country, who had formed, no doubt, a strong opinion (whether just or not was no portion of the inquiry) of the merits of the medicine, in which one of the defendants had an interest; and it was the result of something which she stated to have occurred, and which they sent, not with a view of injuring the character of the person thus referred to, but to show the good effects of that medicine. Therefore, having received a publication which appears to be one of that description in which they thought fit to make people believe that eighty-four had preceded this, they had taken upon themselves the legal responsibility to be derived from such a publication, and had not exposed the lady (who acted by no unworthy feeling in making such a representation to them) to the consequences which might follow from such action. He would not avail himself of his situation to insinuate anything whatever against the character of the plaintiff. He might concede, that at the present moment the full effect of the action of the plaintiff had been accomplished. He (the plaintiff) had challenged these persons to put upon the record a plea of justification. It would seem, that at one time the proprietors of this newspaper, Messrs. Stephens and Moat, believed that they had grounds upon which they might have sustained the truth of the whole or the greater part of this publication, but that upon further and better inquiry, they found that they were unable to do so, and therefore they presented themselves in the situation of defendants, against whom a verdict must pass. He owned that he was a little surprised, considering the evidence of one of the witnesses, as to the circulation of the paper in Winchester, where alone it could be understood as applicable to the plaintiff,—that he should bring his action in London,—that he should have thought fit to bring the witnesses to that place, instead of causing his character to be vindicated upon the spot where it had been assailed, and among the very persons who had inserted the publication; but he did not mean to insinuate that the plaintiff was afraid to meet these charges, he had no authority to say that; but he would suggest that if the cause had been tried at Winchester, it would have been known by those who knew the plaintiff, that his character had sustained no injury whatever from this publication; that those who had casually seen it might have appreciated the character the plaintiff had borne, but while at the same time the vindication of his character would have been more complete, he could not have asked with the same boldness for any large damages at the hands of a jury. He regretted that the defendants had undoubtedly transgressed the law, but it was in the hope of benefiting the public they had so done, and he felt convinced the verdict would be just and honest.

Lord Chief Justice TINDAL, in summing up, said, this was an action which was brought by the plaintiff for a libel, imputing to the plaintiff ill treatment of a patient under his care, accompanied with cruelty. The action was brought to recover a compensation in damages for the injury which this publication is in its nature calculated to inflict on the plaintiff, and also some remuneration for the distress of mind which he felt, when he was so held up to public indignation and scorn for the alleged ill treatment of a poor child. It would be for the jury to say, what was the fair and reasonable compensation he ought to receive. It was quite clear that the ground which had been urged as a defence had altogether failed. It was no answer at all that a lady in the country, of an enthusiastic character, submits to the defendant a statement which turns out to be fabricated, or at least very much exaggerated, in its particulars; but, however, the jury had merely to assess the damages which the plaintiff had sustained. It appeared to him (the learned judge), from some parts of the libel which professes to give an accurate account of the course of treatment and cure, that it seems only to have been put in for the purpose of inflicting a wound on the feelings of the plaintiff. They called it "from a correspondent in Hampshire, a dreadful instance of cruelty and maltreatment practised on a poor child by one of the faculty." One could hardly see that men, who produce a publication with such enthusiasm as that, can have intended otherwise than to attack a man who was regularly initiated in the profession, on purpose to make way for their own remedies, which they conceive to be useful at all events, for the purpose of serving themselves in a pecuniary point of view. As to the words with which they begin the statement, they were words evidently put into the publication after the letter had been written, and, no doubt, after it had been received. In the course of her letter, she stated in one place that "Mr. Pursell had been, and pronounced the child

worse, and in more danger than when he saw him last; squeezed his back where the blister had been; made the child cry, and then said, 'There is something wrong there, he must have another blister on the same part, and ointment to keep it open, leeches, powders, and lotion, the same as before.'" Then she said, "the mother told him she was quite sure the child was better, and that she should not attend to his orders any more, for she did not believe he tried to cure her child." That was stepping out of the way in detailing the treatment of a medical man; even if she had stated so, it would not have justified this attack; and in drawing a conclusion from the facts, it might be useful to look at the difference between the practice of the regularly-educated medical man, and the effect of this newly-discovered remedy. A person stepped out of the course, and gave an account of what the mother said—that she did not believe this person, who claims under the record, ever attempted to cure her child. The writer made Mr. Pursell to call again upon the 25th, and when asked what he thought of the child, to have said, "Oh, he is quite an altered person." Mr. P. had "previously seen some person, to whom he said he could have cured the child long before, if he had been sure he should have been paid for it"—a great calumny in point of fact, for it was not justified, nor was it stated where the party is to be found, in order to have an opportunity of proving it, if it were true. It was a great calumny, when a man had been attending a family in humble station, to charge him with leaving off that attention, and being guilty of such baseness upon a purely selfish feeling, and not exerting the faculties he possesses—asserting, without reference either to the mode of treatment, or to the virtue of the newly-discovered remedy, a falsehood which imputed to him great baseness of mind. It appeared there had been a republication of the libel in another shape. He should not advise the making of that a ground for the increase of damages, but it was a question for the jury. It was evidence to show that Mr. Moat had not done the thing privately or unadvisedly. The defendants both insisted upon it that all they had asserted was true, and they had allowed it to remain on the record until Friday the 4th of July. It was asserted, upon the part of the learned counsel for the defendants, that this was no aggravation of the offence at all, for it showed that before the investigation they thought it was true, but afterwards found it was false. It was this assertion which has kept the mind of the plaintiff in a considerable degree of anxiety, and the jury would say whether they thought that showed any dignity of mind on the part of the defendants. If it was meant to deter the plaintiff from proceeding further, by the fear which it might provoke in a susceptible mind, then it bore a still worse aspect and conclusion.

The question of damages, which is all you have to determine, is one that belongs to yourselves; you will say, under all the circumstances, what is a fair and temperate remuneration, what damages the plaintiff ought to receive, for the injury he has sustained.

The jury retired for a few minutes, when they returned a *verdict for the plaintiff, damages* FIVE HUNDRED POUNDS.

CITY OF YORK, GUILDHALL.

Saturday, July 19.

THE KING *v.* WEBB.

Before the Lord Chief Baron LYNDHURST.

THIS trial having excited a great sensation in York and its neighbourhood, the court was crowded at an early hour.

The counsel for the prosecution were Messrs. STARKIE and DUNDAS; for the defendant, Mr. POLLOCK, Mr. Sergeant ATCHERLEY, and Mr. ALEXANDER.

Mr. STARKIE stated the case to the jury. The charge was, that the prisoner having, with want of caution, administered a powerful medicine, he being ignorant of the nature of that medicine, and of the disease for which it was administered, had caused or accelerated the death of Richard Richardson. Our space will not permit us to give the address of the learned counsel; we proceed, however, to elicit the facts of the case from the evidence, of which the following is an abstract.

Samuel Robson. I am apprenticed to Mr. Sowray, draper. Knew Richard Richardson, who was also apprenticed to Mr. Sowray. He died on the 27th of June. Began to be ill on the 16th of June, and was in a good state of health previous to that. In the course of Tuesday I got some medicine of Mr. Webb. There were some packages of Morison's pills. The daughter gave me them. Mr. Webb called to see him between that day and Friday. Richardson's mother came to see him on the evening before he died.

Cross-examined by Mr. POLLOCK. I believe Mr. Webb sat up with deceased one or two nights. I fetched two boxes of pills on the Tuesday morning.

Jacob Hewgill. Knew Richardson. His complaint was the small-pox; I saw Mr.

Webb at Mr. Sowray's; when he returned from the deceased, we always asked how he was, when he said that he was in a fair way of recovery.

George Robson. I am a farmer at Osbaldwick, and knew Richardson. On Sunday the 15th he was well. From some conversation which I had with Mr. Sowray, I asked Mr. Webb if he had taken ten, fifteen, and twenty pills in one day, when he said he had.

Elizabeth Whipp. Mother of Richardson, the deceased. I arrived in York about nine o'clock on Thursday evening. When I went to see him, Mr. Webb was there. I expressed my wish to have a medical man, when Mr. Webb said that there was no occasion, as he would be well and walking in York in two or three days. My son had a very restless night, as he never got a moment's rest all the night. I never gave him any medicine; he was at the close-stool two or three times that night. I saw Mr. Webb the next morning, and I wished to have a doctor; my son wished to have Mr. Allen. Mr. Webb said that there was no occasion, as he was better. His hands and feet were in a cold clammy state; I saw when he got up that he was very weak. When Mr. Webb came, he gave him some pills, but I do not know how many. I paid Mr. Webb 15*s.* for the pills my son had taken, and there were the remainder of two boxes which he had not taken. The room in which my son was, was very small; the window was opened at four o'clock in the morning, and Mr. Webb said we had done very wrong. My son said to Mr. Webb that the piles were very bad; he was sick and retched, but never threw up. I saw Mr. Webb just after my son died, when Mr. Webb said, it was in consequence of the window being open that he died.

Cross-examined by Mr. Alexander.—When Mr. Webb went away, he said that he would stop all night if they required him; the window was closed just after Mr. Webb went away, and he found it open again when he came in the morning.

Mr. John Wood. I am coroner for the city of York, and held the inquest on the deceased. I gave two boxes, containing some pills, to Mr. Singleton, solicitor for the prosecution, to have them analysed. The examination of the prisoner was taken down in writing, which I now produce. I cautioned him in the usual manner.

Mr. Singleton. Received two boxes of pills from the last witness, and gave them to Mr. West of Leeds.

Mrs. Whipp, on being recalled, said that when she received the boxes from Mr. Webb, after her son died, the stamps of the boxes were broken, as if some pills had been taken out.

Mr. Wm. West. I am a chemist and druggist at Leeds, and received two boxes of pills from Mr. Singleton, on Saturday the 5th of this month. I analysed part of the contents of each box, and found the presence of aloes, gamboge, colocynth, a little cream of tartar, and a small quantity of ginger in No. 1, gamboge half a grain, aloes three-quarters of a grain, and three-quarters of a grain of cream of tartar. Of No. 2, three grains aloes, colocynth one grain, gamboge one and a half grain, cream of tartar half a grain, and ginger too small a quantity to be denoted.

Mr. West, by Mr. Pollock.—I received about fifteen pills from Mr. Singleton. This witness went into a very long and minute detail of the several tests to which he had subjected the pills, to arrive at the conclusions he gave in evidence.

Mr. Webb's examination at the inquest was then put in and read by the clerk of arraigns, and also a letter which was sent by Mr. Webb to Osbaldwick, respecting the death of Richardson.

Mr. James Allen. Am a surgeon in this city, and have been in practice six years; was called in about eleven o'clock on Friday morning to attend Richard Richardson; saw Mr. Webb, who told me that a person was ill in the next room in the small-pox, and at the patient's request he had been attending him; I went up to the bed-side of the deceased, and found the hands livid, and the whole body in a state of perspiration, and labouring under the small-pox. From the state that Richardson was in, I apprehended that it would end fatally. I understood Mr. Webb to say that he had given him some of his pills. The night-table contained a large quantity of liquid evacuation. In about two hours and a half I found the deceased in a dying state. I believe he died in about half an hour. I afterwards held a *post-mortem* examination. I found the left extremity of the stomach in a state of inflammation. To the best of my belief he died of small-pox, very probably aggravated by drastic purgatives. Morison's pills would, in my opinion, tend to accelerate death. I should think that the window being open would not be attended with any disadvantages.

By the Judge. In my opinion the death of the deceased was accelerated by the treatment he had undergone.

Wm. Matterson. I am a surgeon, and have practised for twenty-nine years. As to the treatment of patients in small-pox, I consider they ought to have purgatives

of the mildest description. In this case saline purgatives ought to have been used.

Cross-examined by Mr. ALEXANDER.—The cardiac extremity of the stomach was inflamed. There have been very numerous cases of small-pox in York lately; not one has proved fatal within my practice. I would have had the window open the whole of the time. I think that the deceased's death was accelerated by the treatment he received.

Dr. Belcombe. I am a physician, and have been in practice about twenty-two years. I saw the deceased, and am of opinion that the small-pox was heightened by the treatment he received.

Cross-examined by Mr. POLLOCK. Inflammation of the stomach is not often attendant on the small-pox, but is occasionally. It appeared to me that some acrid substance had been given.

By the JUDGE. I think that death was accelerated by the treatment he received.

Dr. Wake. I have been in practice about twenty-six years. From the inflammation of the stomach, it struck me very forcibly that if I had not known the cause of the deceased's death, I should have thought that rank poison had been taken. I attribute the inflammation to the administering of highly acrid drugs.

The case for the prosecution being gone through, Mr. POLLOCK submitted to his Lordship that there was no evidence whatever that the prisoner at the bar acted upon any other motive than a sincere desire to relieve the pain of the young man, and therefore he thought it was not a case to go to the jury.

Mr. Sergeant ATCHERLEY and *Mr.* ALEXANDER followed on the same side.

Mr. WEBB was then called upon for his defence, when he addressed the Court from a paper which he held in his hand.

Mr. John Key, a clerk in the stamp-office, in London, proved that the stamps upon the boxes produced by Mr. West are the same as are furnished to Mr. Morison.

Mr. John Morison, son of Mr. Morison, who makes the pills, said—I know nothing of the manufactory: my father only sells two sorts, Nos. 1 and 2. I am an attorney at Gray's-inn. I have taken these pills by hundreds, thirty per day for three months successively.

Mr. Moat. I am one of the proprietors of Morison's Pills. There are two sorts, Nos. 1 and 2.

Mr. Norton recalled. I live at Derby. The largest number I administered were 20 pills. When I gave my son 15, and they did not answer, I gave 20. I also gave the same number to a girl who was in the small-pox, and, consequently, liable to the same treatment. I have taken the pills myself, and have taken as many as 35 pills in one day.

[Here followed the evidence of several witnesses to a similar effect.]

James Overton. I am a surgeon in York, and have been in practice above 15 years. I have seen cases of the small-pox, where inflammation has taken place from the throat down to the intestines. Inflammation of the stomach is very common with persons who die of confluent small-pox. Where there is prostration of strength, I think that active purgation would be highly prejudicial. I never would use quack medicines.

Mr. Sheriff Hotham. I have known Mr. Webb fifteen or sixteen years. His character has been one of the best for kindness and humanity.

The *Rev. William Flower*, and many other witnesses, all of whom had known Mr. Webb, various periods from ten to twenty years, gave him a most excellent character.

Lord LYNDHURST in charging the jury said, the prisoner, Joseph Webb, was charged with the commission of the crime of manslaughter,—with having caused the death of Richard Richardson. His Lordship had already stated what he conceived to be the indisputable law upon questions of this kind. If a person of gross ignorance of science, and the practice of medicine, takes upon him to administer an active medicine, and particularly to a person labouring under severe disease, and death ensues, he is guilty, in point of law, of the crime of manslaughter. His Lordship then recapitulated the evidence on both sides. They would take the evidence on the one side and the other, and say, was the death of the young man accelerated by what had been done by the prisoner at the bar, and were they satisfied that the course he had pursued had betrayed gross ignorance? If they were so satisfied, they would find a verdict of Guilty; but if they entertained any solid, real, reasonable doubt, the prisoner would be entitled to a verdict of acquittal.

The Jury, after retiring for about half an hour, returned a verdict of—*Guilty*, but recommended him to mercy.

THE LANCET.

London, Saturday, July 26, 1834.

When the resignation of Earl Grey was announced, as the chief of the Ministry, no little alarm was excited in the minds of the profession, lest the labours of the Medical Committee of the House of Commons should be brought to a sudden termination. In proportion as the hopes of the reformers were checked, the anticipations of the corruptionists became cheerful and excited. Sinister reports of every description were put in circulation, and it was alleged that the work of reform, in *medical* affairs at least, had for a time been brought to a conclusion. It was alleged that a new Ministry would be selected from the ranks of the Tories, and that consequently all the Tory charters, Tory acts of Parliament, and Tory corporations, would be shielded from the despoiling touch of reform.

As it is well remembered by the profession, that the Committee, of which Mr. Warburton is the able president, was appointed under the sanction of the late Ministry, there is not to be found a legally-qualified practitioner in England, Ireland, or Scotland, who does not feel grateful to Earl Grey for his acquiescence in a motion, which, in its results, will surely lead to the overthrow of the monopolists, and thus be productive of the greatest benefit to the profession and to mankind. Whatever, then, may have been the errors and omissions of the Noble Premier in other respects, it cannot be alleged against him that he neglected to discharge his duty to the members of the medical profession in Great Britain. On the contrary, by holding out the hand of encouragement to Mr. Warburton, Earl Grey contributed in a higher degree to secure the due cultivation of medical science, and to protect the health of the community, than any man who ever preceded him in this country, in the high and dignified office which he occupied.

Fully aware of the vast power of the Premier, the joy of the corruptionists on Earl Grey's resignation was in exact proportion to the just torture they had endured from the upright manifestion of his authority in medical affairs, and in proportion to what they conceived it was possible they might gain by his relinquishment of the seals of office. When chicanery, malice, and intrigue, — when political device and official subtlety proved unsuccessful in the attempt to place in the office of Prime Minister a thorough-going conservative,—an ultra-tory,—that instant did the abettors, defenders, and apologists of medical enormities begin to exhibit not only the indications of painful disappointment, but prominent signs of an irremediable discomfiture. Why? Because the defeat of a project for insulting the country with a Tory administration was instantly followed by the nomination of Lord Melbourne as the successor of Earl Grey.

Once more were the abettors of abuse thrown into a paroxysm of rage; again was their ingenuity racked to invent some new scheme,—to throw out some new device, for thwarting the advocates of medical reform. Quick as thought, the stale trick was resorted to of attempting to restore the courage and confidence of the officials of our corporations and their toad-eating expectants, by circulating a report or rather a whisper, that on one newly-elevated member of the Cabinet, a secret private influence could be exercised in favour of the existing medical institutions. The trick is of too contemptible a character to demand from us any further notice, and we should not have adverted to it at all, had it not been for the purpose of showing the degrading and

slanderous arts which men, pretending to be actuated in their conduct by "high moral feeling," will not hesitate to resort to, in order that they may feed on the fruits of other men's labour, and check, at the same time, the current of national improvement. Without the aid of falsehood and calumny, such opponents are destitute of power; equally feeble are they when the weapons, with which they contend, are seen and understood.

When the Apothecaries' Act Amendment Bill was before Parliament last year, it will be recollected that several deputations from bodies of medical men had interviews with Lord MELBOURNE, then Secretary of State for the Home Department. Different parties of agreed medical practitioners applied to other members of the Ministry, and it has been alleged,—we fear somewhat truly,—that a very influential member of the GREY Cabinet promised the eel-backed President of the College in Pall Mall East, that a "Royal Commission" should be made the instrument of analyzing the ill-assorted materials of the medical constitution. It is almost needless for us to observe that the Minister alluded to is not Earl GREY. While the pestilential solicitations of the corruptionists were applying, it would seem, to the too-willing ears of one or two advisers of the Crown, what was the conduct, what the language, of Lord MELBOURNE, who, happily for the cause of medical reform, is now the chief of the Cabinet? "Mr. WARBURTON," said the noble Viscount to a deputation from the Licentiate Physicians practising in London, "is to move for a committee to in-
"quire into the state of medical educa-
"tion and medical affairs generally, and
"you may be assured that no new law
"will be enacted, giving additional powers
"and privileges to any of the medical
"colleges or corporations, until that in-
"quiry shall have been instituted and "completed." This was the pledge of Lord MELBOURNE, and thus far it has been redeemed in the most honourable manner. Ministers, at the commencement of the present session of Parliament, acquiesced in the motion of Mr. WARBURTON; a committee was appointed, the examinations were commenced, and up to the present time the investigation has been conducted with that strict impartiality, and at the same time searching scrutiny, which should ever characterize the investigations made by Parliament into the abuses of national institutions. Independently, therefore, of the acknowledged integrity of Lord MELBOURNE, we may infer, from what has already transpired, that the new Premier will encourage, by his powerful support and authority, the advancement of that labour, of the commencement of which he expressed an honest cordial approval. Although, therefore, the profession have reason to be grateful to Earl GREY, for his having refrained from opposing any obstacle to the appearance of the collegiate and corporate culprits on the floor of Parliament, still there is no reason to apprehend that the substitution of Lord MELBOURNE for that eminent nobleman in the office of Premier, will have the effect of retarding the progress of a single measure that can be devised for the welfare of the profession, or the health of the community. At the time, therefore, which is chosen by the ultra-tories, and by the monopolists of every hue and grade, to circulate their slanderous whisperings against a Cabinet which is known to be favourable to, and is almost pledged to support, the important cause of medical reform, we entreat our medical brethren in every part of the empire to contemplate with feelings of satisfaction the labours of the Committee. Let them prove their confidence in that body, and in the upright intentions of the Ministry, by sup-

plying, to the last moment, every tittle of evidence which can contribute to the success of those sound principles of medical government, which have been advocated by the best-informed men of the age in which we live.

The inquiry into the abuses of the College of Surgeons in Dublin commenced on Monday last, and has been proceeded with up to the period of our going to press. It is *such* an affair! Poor Mr. Kirby has been so severely ground by his examinator at the head of the Committee, that it is feared nothing but the dust of the hero of Bully Acre will ever more return to Dublin. Were we to judge from the knowledge evinced of their past actions, it would be easy to imagine that Messrs. Kirby and Cusack had been introduced to some of their old acquaintances—respect for the members of the Committee forbids us to say, friends. The investigation, it may be already predicted, will afford the greatest possible satisfaction to the members of the medical profession in Ireland. Not a point is omitted, not a question is spared, although it is thought rather odd by some Dublin practitioners now in London, that notwithstanding Messrs. Jacob and Harrison have been sent over by the College, they have not been *summoned* by the Committee to appear as witnesses. We have no remark to offer on this circumstance.

In this brief notice of Irish affairs we may observe, en passant, that a contemporary, in a late number of his Journal, is quite lachrymose on the prospect of that veteran professor, Dr. Macartney, being removed from the Chair of Anatomy and Surgery in the University of Dublin. He may dry up his tears and be consoled; the University is not about to lose the services of the Doctor; at least that is his own opinion, and we presume him to be tolerably good authority on this matter. Neither would his removal, we are informed, be the subject of so much lamentation as our contemporary would wish us to believe. The Doctor, it is said, is not so popular as a lecturer as he was some years since, and, as a politician, he is actually disliked.

Condensed reports of two trials, in which the name of *Morison* cuts a conspicuous figure, are printed in another part of our columns; but it will be seen that in both trials the ingenious pill-maker contrived to appear by deputy. The jury, who awarded five hundred pounds damages for the atrocious libel on the character of Mr. Pursell, discharged their duty with honesty and intelligence. If such libels on the talents and humanity of private practitioners could be published with impunity by unprincipled quacks, within a very few years the members of the medical profession would be reduced to the lowest possible state of public degradation.

There are persons stupid enough to talk of the "*efficiency*" of the Apothecaries' Act, as a protecting shield for the public and the profession, against the wanton and avaricious designs of pretenders to medical skill. Why, is it not notoriously true, that the veriest blockheads who ever breathed, are prescribing and administering "*Universal* pills" from one end of the kingdom to the other? And yet this Act interferes not, checks not the practice of a single one of the entire host of fools and charlatans! Silly Mr. Webb intended well while he was actually engaged in killing his friend, and thought he was doing no harm because his *intentions* were good. If purity of intention were to screen men from the penalties which ought to follow a dangerous and

wanton exercise of the judgment, society would be left without a safeguard.

If the sale of *secret medicines* be not suppressed by law, the work of medical reform will not be rendered complete in this country.

RECORD

OF THE

CONCOURS HELD AT PARIS,

IN JUNE 1834,

To supply the Vacancy in the Chair of

CLINICAL SURGERY,

OCCASIONED BY THE DEATH OF BARON BOYER.

LECTURE OF M. VELPEAU.

(Continued from page 503.)

Second Patient.—ORCHITIS ARISING FROM EXTERNAL INJURY.

Let us now turn to our second patient. This was a man much older than the former; he may count between forty and forty-five years; for the last six days he has been affected with a swelling in the right groin, without being able to assign any probable cause for the enlargement. On inquiry into the nature of his employment, we found that he was a common labourer, and was constantly in the habit of employing the arm to work a wheel, by which he raised considerable weights; he says this motion frequently gave rise to some pain and suffering about the region of the groin; this part is now a little swollen, and the scrotum is much augmented and enlarged, presenting a tumour as large as the first; this causes some pain whenever he walks about, works, &c.; there is, however, no constitutional derangement, no fever, no general reaction of the system, nor does the patient exhibit any predisposition to disease of the testicle or its envelopes. We asked him if he had been affected with gonorrhœa, and he answered not; this is an important point to attend to, for the inflammations arising from clap are different, and require different treatment from those produced by other causes. On examination, we could not perceive any trace of gonorrhœal matter about his linen, or the genital organs. (Here the speaker entered into a careful, and rather lengthy, detail of the symptoms, which we are obliged to abridge very considerably.) The state of the scrotum and testicle sufficiently indicated the nature of the affection in the present case; there was an elongated tumour passing up from the back part of the testicle towards the inguinal ring; the skin covering it was altered in colour, red, but not painful; the tumour was hard at the posterior part, and resistant to the touch, but before it was soft, and gave the sensation of fluctuation; there was no alteration of any kind, nor tumour, in the inguinal canal.

The tumour, therefore, in the scrotum is an orchitis (*hernia humoralis* of English surgeons), arising from an external injury; certain motions and efforts may easily give rise to a dragging, &c., of the spermatic chord, and cases of orchitis resulting from efforts are frequently seen in hospital practice. Inflammation of the testicle is produced chiefly by two causes; first, by gonorrhœa; this is a well-known and frequent exciting cause of the disease; secondly, by external injury, as a blow, a violent effort, &c., and such I consider to have been the cause of the affection in the present case, where we have an external injury. There was, as I said, no gonorrhœa; besides, in this latter complaint, we have a peculiar and important sign, which may serve as a guide; gonorrhœal orchitis commences always by the epididymis; in many cases this organ remains swollen and painful, and the disease may end here; in others the inflammation is propagated along the vas deferens to the body of the testicle; in orchitis arising from injury, the inflammation commences in the substance of the testicle itself, and is either confined to this organ, or extends some way along the chord. In our patient the disease seems to be confined exclusively to the testicle, for although we have some swelling along the course of the epididymis, this duct is not hardened or painful to the touch. We have, therefore, characteristic signs of the two species of orchitis, which are pretty certain; when the inflammation commences by the epididymis, which is painful and swollen, and when the enlargement of the testicle is moderate, the orchitis, in all probability, derives its source from a gonorrhœal affection; on the contrary, when the testicle is primarily affected, and the tumefaction very considerable, we may attribute the disease to an external cause or injury; in the present case we have no signs of venereal influence, and I therefore conclude that the inflammation originated in an accidental cause, and not from the application of a specific virus.

There is another point in this case worthy of our attention. In describing to

you the tumour of the scrotum, I noticed the presence of some liquid, and of a sense of fluctuation which we felt in the anterior part. This gives rise to a very interesting question. Most surgeons and authors have remarked that in blenorrheal orchitis there is always a more or less quantity of serum effused into the cavity of the tunica vaginalis testis. M. Rochaux has extended this proposition, and affirms, that what are called orchites are nothing but acute hydroceles; that, in short, the disease consists in nothing more than an inflammation of the serous membrane lining the testicle and effusion into its cavity. Since then MM. Marc, Moreau, and others, have claimed the priority of this idea. M. Rochaux has given various facts and arguments in support of his theory, but before establishing any discussion, it would have been right, I think, to have verified the fact itself, a thing which he has by no means positively done. In the first place, he has sustained that it is impossible for the tunics of the testicle and epididymis, which are so strong and resisting, to allow these organs to acquire such an increase of size in so short a time as they often present in orchitis. However, we cannot refuse to allow this enormous development to the epididymis when it is even more difficult to conceive its possibility than in the testicle. Besides, M. Gaussail has seen the testicle considerably enlarged, and I myself, in examining the dead body, have found the organ increased to double, triple, even four times its natural volume. It has also been affirmed by the supporters of this doctrine, that effusion is the most early and constant symptom of this affection. This assertion, Gentlemen, is also inexact. If you observe carefully the progress of orchitis, you will find that the tumefaction commences by the epididymis or testicle, and that the effusion takes place a few days later, while in some cases the inflammation may go on without giving rise to any effusion at all. Since this question was first started, I have examined carefully all the cases of orchitis which fell under my care, either in hospital or private practice, amounting at least to 50, and observed only 12 in which the enlargement of the testicle was not predominant. As to the cause of effusion, it is easily accounted for. We have a similar effect produced in the cavity of the serous membrane lining the lungs when these latter organs are inflamed. So much for the diagnosis. Let us now turn to the treatment.

Orchitis, in general, is by no means a dangerous affection: in the majority of cases the inflammation terminates by resolution; in others it may become chronic, and terminate in suppuration, hardening of the testicle and chord, or in a degeneration of a bad nature. (Here M. Velpeau entered into some considerations on the danger attending degeneration of the gland, and on the treatment which would be necessary in such case.) The inflammation in simple orchitis is much more difficult to remove than that which arises in consequence of the gonorrheal virus. The treatment is very simple: as the disease is inflammatory, we must have recourse to antiphlogistics, and employ them with greater promptitude and energy in proportion to the obstinacy of the disease. It is unnecessary to enter into any development of the antiphlogistic treatment, which is already so well known: the chief points to be relied on are sanguineous depletions and a debilitating regimen. I would in all cases prefer general to local bleeding: the latter seems to be very hazardous. The application of leeches to the tumour, or along the chord, may arrest the primary inflammation in cases of gonorrhœa, and aggravate the irritation of the testicle in a very disagreeable manner. I have tried every kind of local bleeding at La Pitié, on the chord, on the testicle, on the perineum, &c., and found that local abstraction of blood was attended with little or no benefit, while the means employed to obtain it might produce unfavourable consequences: I therefore would reject leeches, &c., as a means not to be employed. A much better and more efficacious remedy is the use of purgatives, which soon produce an improvement in the state of the patient. The scrotum might be enveloped in an emollient cataplasm, containing some laudanum to relieve the pain, if severe; and the testicle should be carefully supported by a suspensory bandage. For this purpose the triangular one of M. Mayor answers very well. Two or three days after the general bleeding I would give a purgative, and repeat it if necessary. Should the inflammation become chronic, we might apply a small number of leeches, but merely as resolutives, not to deplete; and endeavour to remove any induration which might remain by mercurial frictions, iodine, and finally the application of a blister to the scrotum.

We have now reproduced, though in a brief manner, the lectures of the principal candidates, MM. Sanson, Velpeau, Lisfranc, and Berard; there remain those of MM. Guerbois, Le Pelletier, and Blandin, which our space will not permit us to give at any length; perhaps we may find room to give an outline of

their lectures in the second trial. M. BLANDIN had to speak on a burn and on a tumour of the knee; M. LE PELLETIER on an affection of the eyeball, and a fracture of the lower extremity; M. GUERBOIS on a sarcocele and an affection of the vertebral column. It will be seen by a reference to several of the cases which fell to the lot of the candidates, that the jury had more in view a difficulty of diagnosis than to select a subject in which a brilliant lecture might be made; and hence an uncertainty in the opinion of many of the speakers, which, though it did not detract from the practical value of his lecture, diminished much of its effect. This may be seen chiefly in the cases of MM. VELPEAU, LISFRANC, and BLANDIN. The two former had to treat tumours of a very doubtful nature; and it is said that M. LISFRANC differed in opinion from the jury on his case, the former regarding it as an exostosis, the latter as a fibro-cartilaginous growth.

M. BLANDIN was still more unfortunate; his description of the affection of the knee-joint was extremely correct; but whether from the agitation of the moment, from hurry, or some other cause, he omitted to notice a very large abscess which extended upwards from the knee-joint as far as the middle of the thigh, and which rendered an amputation urgent. The presence of this purulent collection was discovered by all the other candidates, and was moreover demonstrated in a few days after, when the limb was removed by M. BRESCHET at the Hotel Dieu.

For elegance of diction, arrangement, and easiness of manner, the lecture of M. LEPELLETIER was unrivalled. But a double error of diagnosis is attributed to this candidate. Thus his first patient was not affected with a hydrophthalmia, upon which the candidate lectured, but with an exophthalmia in consequence of a scirrhous tumour of the orbit, while he omitted to notice the fracture of the fibula which accompanied the fracture of the tibia in the second case. As to M. GUERBOIS, who was very lately appointed (it is said by favour) second surgeon to the hospital of La Charité, we have nothing to say favourable, and we shall not therefore add anything to increase the disappointment which he must have felt in finding himself so unworthy to compete with his hospital brethren. His lecture, which should have occupied an hour, was terminated in half that time, and the old gentleman was compelled to pass from one patient to the other at least half a dozen times before he could complete his sixty minutes.

Here terminated the lectures delivered during the first trial.

The second trial in the Concours for the late Baron BOYER's chair of clinical surgery terminated on the 4th of this month. We regret that we can give only a very faint outline of the excellent lectures delivered by several candidates, because, whether from increased emulation, or that the subjects treated of were more calculated to show off the powers of a speaker, the lectures during this trial were superior to those which we have already published at much greater length.

LECTURE OF M. BLANDIN.

(June 27th.)

First Patient.—CHRONIC ENLARGEMENT OF THE AMYGDALÆ.

M. BLANDIN had two patients—Salle St. Marthe, Hôtel Dieu, Nos. 28 and 66. One was a bookseller's clerk, a young man of twenty-three years of age; he was of a nervous and lymphatic temperament; the chest was narrow, &c.; he had been frequently subject to angina tonsillaris. (Here the speaker gave a very clear and good description of the symptoms.) In the interior of the mouth were two tumours on the right and left sides, unequal in form, extending more vertically than in the transverse direction, and furnishing a quantity of muco-purulent secretion. The chest did not exhibit any symptoms of disease; the sound was good, the respiration free; there was no engorgement to be perceived externally. The diagnosis is a chronic enlargement of the amygdalæ.

The tumours with which this patient is affected are not dependent on a tumefaction of the ganglia of the neck, for we did not perceive any inequality or tumour externally; they do not either depend on a cancerous affection of the amygdalæ themselves; for cancer, as it seldom attacks the two mammæ at the same time, is hardly ever seen affecting the two amygdalæ simultaneously; besides, the patient has never experienced any lancinating pain, &c., in the part. The tumours do not depend on affection of the lymphatic system, for, as was said, the ganglia are not enlarged; they are the consequence of frequently repeated inflammation of the amygdalæ. One of the most remarkable symptoms in this disease, is the passage of alimentary matter from the pharynx into the posterior part of the nasal fossæ; this was explained by M. BLANDIN, and referred to the impossibility of elevating the velum palati by the different muscles. As to the prognosis, it is favourable. In most cases resolution never takes place, or oc-

curs very rarely; however, the inflammation can rarely terminate in death, nor the cancerous degeneration. Sometimes the amygdalæ and surrounding parts are seized with a violent acute inflammation; here, if the disease be neglected, the tumefaction of the parts may prevent altogether the entrance of air into the lungs, suffocation will supervene, and death be the consequence.

Wherever, then, the amygdalæ are so much swollen as to threaten a danger of this kind, they should be removed; antiphlogistics, blisters, discutients, &c., are of very little value. Here the speaker entered into a complete history of the different methods of operating. Cauterization should be rejected, and the ligature is inapplicable on account of the largeness of the base of the tumour; excision is, therefore, the only means which can be employed without danger; but we must not attempt to remove the amygdalæ in totality. BECLARD saw a case of this kind operated upon by a charlatan at Angers; the internal carotid was wounded, and death instantly produced. M. BLANDIN now described the operation which should be employed in preference to the others. When the patient is reasonable, it is unnecessary to place a wedge between the teeth; he also recommended cutting with the bistoury at first from above downwards, and then from below up, without giving his reason for the preference, and praised the instrument of M. MARJOLIN, which seizes and holds the tumour better than the hooked forceps of MUSEUX.

The effects produced by this operation are, in general, very simple; however, in one case, M. BLANDIN saw excision of the amygdalæ give rise to a weeping of blood, which threatened the patient's life, and was arrested with the utmost difficulty.

Second Patient.—BUBO.

The second patient was a currier, 26 years of age, weakly formed, with a narrow chest, &c. Twenty or thirty days ago, while endeavouring to lift a weight he felt some pain in the left groin, and has now a tumour in the part. The bubo is large, elongated from above downwards and from within outwards; its base rests on the femoral vessels. In the most elevated part of the tumour may be felt a superficial fluctuation, and the skin here is red, and seems ready to open. Below and externally there is another point of fluctuation, which is deep-seated; here, again, the skin is red and little altered; the hand placed upon the tumour is elevated by the pulsations of the femoral vessels. As to the cause, M. BLANDIN remarked how the patient attributed the tumour to an effort. He was submitted to a strict examination; there was no appearance of congenital phymosis; no running from the urethra or blenorrhœa; the patient pretended not to have seen a woman for a year. There was no wound on the toes, leg, thigh, penis, scrotum, perineum, &c., in a word, nothing to explain its existence. The tumour in the present instance might be attributed to a hernia, an abscess by congestion, or an aneurysm, &c. (Here the speaker sought to fill up his time by a long digression on the differential diagnosis of bubo from hernia, aneurysm, &c.)

The tumour in the case before us is not a crural hernia, for on making pressure upon the abdominal parietes, we did not find any continuity upward. It is not affected or displaced when the patient coughs; besides, it commenced externally, and then extended upwards and inwards.

It cannot be attributed to an aneurysm of the femoral artery, for the pulsation observed in the tumour is merely a movement of elevation and depression, not of expansion; besides, though of recent date it is already very large, which does not correspond with the growth of an aneurysm. It is not an abscess by congestion, because there were no premonitory symptoms of inflammation, or pain in the limbs, &c. Nor is it cancerous, because cancer very rarely affects the ganglia primitively. Is the bubo then idiopathic or of a syphilitic origin? M. BLANDIN hesitated to conclude the former, and said it might perhaps be attributed to a venereal affection, although there was no discharge from the penis, and the patient affirmed not to have touched a woman for twelve months.

The treatment should be antiphlogistic, and consist in the application of leeches to the part, cataplasms, absolute rest, and diet. The tumour may be opened by the surgeon, or we might leave the case to nature, but then the collection of pus will be greater. To open the bubo, is the bistoury to be preferred to the caustic potass? M. BLANDIN did not decide this question in a positive manner, although he seemed to incline in favour of the caustic, from certain facts which he had observed at the *Hôpital Beaujon*. As to antisyphilitics, the speaker thought, on account of the uncertainty of the case, that they should be deferred until the appearance of secondary symptoms.

It will be seen by the brief analysis which we have just given of M. BLANDIN'S lecture, that he was much embarrassed by the unencouraging nature of his subject, and compelled to enter into va-

rious digressions little connected with the case before him. It also appears that the second patient was actually affected, at the time of examination, with an acute gonorrhœa, which escaped his notice, although from the presence of the bubo in the groin he seemed strongly inclined to deduce its existence.

ON THE EFFICACY OF THE

NITRATE OF SILVER

IN

GLOSSITIS AND TONSILLITIS.

By JAMES H. HORNE, *Esq., Surgeon, London.*

EXPERIENCE has fully proved that whatever attention medical practitioners have bestowed in ascertaining the properties of the nitrate of silver for eradicating diseases, and restoring parts to their normal condition, their labour has not been employed in vain. To Mr. Higginbottom the profession are particularly indebted for much valuable information on this substance, but since the appearance of his last work ample time has been afforded for further testing the efficacy of this valuable agent. Some remedies, like fashions, have their day and then decline; but I am satisfied that the more the nitrate of silver is tried, the better it will be found to answer our purpose; and when used externally, and its power over a particular disease has been ascertained, we may prognosticate almost invariably the result. At least, so it has proved in my practice, during some years' trial, and scarcely a day passes without my testing its efficacy in some form or other. As I feel confident that there remains much to be made known respecting it, I shall endeavour to contribute my share to the stock of knowledge, confining my remarks at present to its application in glossitis and tonsillitis.

GLOSSITIS.—*Case.*—In February last I was requested to see a lady, aged 26, of a spare and delicate constitution, who was suffering from a determination of blood to the head, with symptoms of vertigo, dimness of sight, pain and heaviness of the head, stupor, nausea, torpidity of the bowels, and loss of appetite; she had a pulse quick and small, tongue white and furred. Blood to the amount of sixteen ounces was abstracted from the arm, and cooling saline aperients with diuretics combined were freely administered, and perfect rest was enjoined. On the following day the bleeding was repeated, and the same medicines given with great benefit, and by following up the treatment with diuretics and tonics, my patient for the time being was perfectly restored. At the latter part of the same month, I was urgently solicited to visit her again, when I found her presenting a well-marked case of idiopathic glossitis, caused by fatigue and watching, which had greatly reduced her, so much so that she was scarcely able to raise her hand from the bed. She had first felt the tongue becoming bad on the preceding day, and it got rapidly worse during the night. The tongue I found was enormously swollen, but it did not protrude from the mouth; her respiration and articulation were exceedingly difficult; pulse small and quick; countenance extremely anxious; skin moist and clammy; bowels confined. The nitrate of silver in substance I immediately applied to the tumefied organ. This required considerable pains to accomplish effectually, for the patient could neither open the mouth, nor thrust out the tongue. In the evening the burning heat and pain, which torment the sufferer in severe cases most dreadfully, had returned, and the application was renewed to lessen the heat and to prevent further enlargement. After much difficulty also a saline aperient was forced down. Nourishment of all kinds was refused, from the insufferable torture it inflicted. Next morning both the local and constitutional symptoms were much increased, and having full confidence in the power of my remedy, I carefully repeated the application, and, to support her strength, which was now reduced to the very lowest ebb, a teaspoonful of wine in gruel was swallowed occasionally; but to judge of the difficulty of treatment, the sufferings of the patient, and the anxieties of the friends, this formidable disease must have been encountered by the practitioner. To prevent an unnecessary extension of this case, suffice it to say, that after regularly and assiduously using the nitrate of silver every morning for the space of a fortnight, the tongue resumed its healthy condition, which it has since preserved.

Remarks.—Cases of idiopathic glossitis like the above are, fortunately, rare, and where the patients are not of a robust constitution, I would strongly suggest that the antiphlogistic treatment should not be pushed severely. The local application of leeches and free scarifications, in mild cases, I have seen of immense benefit, but the reverse is too frequently the result in alarming cases, and the swelling and suffering will often be found to be increased dreadfully after the oozing of the

blood has ceased. A case in point occurred in the early part of the year 1831 in a female, aged nineteen years, apparently of a robust constitution, addicted to spirit drinking, and used to exposure to night air. This patient I nearly lost by carrying the antiphlogistic regimen too far, and too long withholding the use of the nitrate of silver. I find that the remedy should be applied regularly, once in every twenty hours, on no consideration allowing the importunities of the patient to prevail against its longer postponement from the sharp-cutting pain it causes, or the benefit obtained will be partially lost, and the cure protracted.

Acute Tonsillitis.—The same satisfactory result from the use of nitrate of silver, for the cure of acute tonsillitis, I can confidently promise, and will illustrate its superiority over any other kind of treatment, by detailing briefly two cases,—one occurring in a plethoric habit, the other the reverse.

Case 1.—Mary E., ætat. 17 years, remarkably strong and robust, was attacked at the latter end of February 1832, and came under treatment on March the 1st, when the disease had arrived at its height, occasioning a constant dread of suffocation. A blunt stick of the nitrate of silver was placed over three or four different parts of the inflamed tonsils, and a mild gargle for cleansing the mouth and saline aperients were prescribed, with a diet of thin gruel. By persisting in this plan until the 5th, a complete cure was effected.

Case 2.—S. B., ætat. 20, has suffered from frequent inflammatory affections, and has had previously a severe attack of tonsillitis, for which she was bled largely. Very energetic measures were adopted by her former medical attendant, to prevent suppuration, which subsequently ensued, and the patient recovered after four weeks' severe illness. When I was called to her (December 7th, 1833), I found that matter had already formed in both glands, and all the symptoms of the disease were very severe. The nitrate of silver was applied as above, and I ordered the mouth to be frequently gargled with warm water. After two applications of the silver, the glands burst and the matter was discharged; and by pursuing the treatment, in less than a week her sufferings were overcome, though some time was required to re-establish her health.

Remarks.—Suppuration, according to the plans of treatment pursued, is the most common termination of tonsillitis, and, indeed, is encouraged by some practitioners in the early stage of the disease, experience having almost invariably proved the inutility of their attempts to reduce the inflammation by the usual antiphlogistic means. In constitutions which are naturally strong, this practice may be warrantable, but in others, less fortunate in their stamina, very serious mischief may be the result, through the formation of matter in the system.

Chronic Tonsillitis.—This disease, long before it is submitted to medical treatment, will be found, on inquiry, to have been fully developed. In children of strumous constitutions, chronic tonsillitis is principally met with, and it is this condition of the system (for whoever attempts to cure this disease by local applications will only be miserably disappointed, or whoever may recommend any single remedy as capable of effecting that result must expect to be treated with contempt) which must first engage our attention. Having improved that condition of the system, as far as our therapeutic means will admit, and not till then, we may expect to eradicate the disease, and to accomplish this the nitrate of silver will best answer our purpose, applying it steadily, twice a week, to the indurated glands for some months, when a complete and perfect cure may be expected. I could advance several cases of this form of the disease for further proof of its efficacy, but these would increase the length of this communication, by compelling me to make some remarks on scrofula, to an extent which I must avoid, and I, therefore, now simply trust that what I have advanced will prove worthy the attention of the profession.

5, Gerard-street, Soho, July, 1834.

REAPPEARANCE OF MALIGNANT CHOLERA —NOTE FROM DR. TYTLER.

To the Editor of The Lancet.

Sir,—The *Cholera* is reported to be again in London,—at least so it is stated in one or two of the Newspapers, and in Placards which are posted upon the doors and windows of certain of the newspaper-offices. Whether this information be correct I possess no means of ascertaining. But should it unhappily prove eventually to be the fact that *Asiatic Cholera* or *Morbus Oryzeus* has re-appeared *in this City*, or in any other part of Great Britain and Ireland, the following extract from the *London Price Current* of June 3rd, 1834, will satisfactorily explain the cause of this unfortunate circumstance, and abundantly prove that until vigorous

measures be adopted to expel *poisonous rice* from the markets of England, the health of the community cannot be considered as secure from this terrible scourge and destroyer of the human race.

"RICE.—Large parcels of Rice continue to be offered at public sale, which enables the buyers to purchase BY PRIVATE CONTRACT AT VERY LOW PRICES; Patna kind has been sold 12*s*. 6*d*. to 13*s*.; ordinary white Bengal at 10*s*. 6*d*.. By public sale this day, 2970 Bags Rice; a part sold rather higher; the usual buyers are now attracted to Rice *on account of the reported short Corn Crops*."—From the *London New Price Current* of Tuesday, June 3rd, 1834.

By means of this notice from the Price Current, is strongly verified the assertion made by me before the Medical Society of London last year, and which was vehemently contradicted by some of its members. For we learn, from the Price Current, that *Patna* and *Bengal Rice*, without the slightest attention paid to its quality, is actually being bought up at present (or at least was so in the last month), with the view of realizing a profit upon its sale in the event of a short harvest. In other words, East India rice is now purchased for the purpose of being mixed with the *flour* that forms the bread of the population of England; this being *bona fide* the meaning of the extract which is above quoted from the London Price Current of 3rd of last June. Yours, very obediently,

R. TYTLER, M.D.

London, July 22nd, 1834.

MR. HOLMES'S CRANIOTOMY FORCEPS.

Ignorance or Forgetfulness, or something worse, of F. H. Ramsbotham.

To the Editor of THE LANCET.

SIR,—You are not, probably, aware, that for some time past the numbers of the *Medical Gazette* have been enriched with reports of the lectures of the younger Dr. Ramsbotham. In that of June 7th, the lecturer entered upon that important subject, the use of instruments in midwifery. Of the value of his instructions in this part, practical men will at once form their opinion, when they learn that he recommends the *crotchet* as a safer instrument than the *craniotomy forceps*; but that I pass over, since, however different his opinion may be from *all* modern practitioners, it is his bounden duty to instruct his class according to his own conviction. But if in treating this part of his subject he should have omitted, through negligence, to notice such important improvements as have been generally made known, he is liable to censure for having abandoned his pupils' interests. On the other hand, if he has done so, not through negligence, but intentionally, in that case his conduct deserves public reprobation. Now for my case.

It is known to the readers of your valuable journal, that some years since I endeavoured to make some improvements in various obstetrical instruments, especially those used in craniotomy; that these were highly spoken of by many eminent practitioners, obtained for me two prizes from the SOCIETY OF ARTS, and were particularly pointed out as real improvements on the instruments of Dr. Davis, and were stated to be the best things of the kind by Dr. James Blundell, of George Street, Westminster, in his excellent lectures at Guy's Hospital—a commendation neither asked for nor expected by me. Now, however mistaken these authorities and myself may be, in attributing particular utility to my inventions, it is the duty of the lecturer to explain to his pupils the present state of knowledge on the subject of instrumental midwifery. But, to take no notice of eulogized new inventions, implies that Dr. Ramsbotham was ignorant of what had been published by me, noticed by the reviewers, discussed at the *London Medical Society*, of what was stated in the published reports of those discussions, and of what had also been reported in the published lectures of Dr. Blundell. But he was *not ignorant* of the circumstances; he was *not* ignorant of the facts, because I showed him my instruments as improvements on the forceps of Dr. Davis, and, *approving* of them, he gave me the following certificate:—

"I think Mr. J. P. Holmes's craniotomy forceps, while they display much ingenuity, are calculated to afford the operator great power in his attempts to extract a perforated head through a deformed pelvis.

"FRANCIS H. RAMSBOTHAM."

Now this "certificate," deliberately given, could not well escape Dr. Ramsbotham's recollection while speaking on the subject of craniotomy; but there was an additional reason why at that moment he could not easily have forgotton me.

I had been endeavouring, for some time before the lecture in question appeared, to explain to the governors of the Royal Maternity Charity the absurdity of appointing members of the Royal College of Surgeons as *assistant accoucheurs* to their physicians, of whom Dr. Ramsbotham is one. I endeavoured to show that it was presumptuous and foolish for the *physician*-

accoucheur to claim any superiority over the surgeon,' whose education and employments are better calculated to instruct him in midwifery, than can be the scholastic attainments which often lead to the acquisition of degrees.

As my views were contained in a circular sent to all the Governors of the charity, as those views underwent an examination by the Committee, and as I took care to mention my instruments, I am justified in asserting that it is extremely improbable Dr. F. H. Ramsbotham could forget me or my pretensions. Why, then, was there this omission? Do we not find the reason thereof in that unwillingness to do justice to the surgeon (stupidly named "general practitioner") which influences more or less the conduct of all physicians? I say *all*, for although some have more, others less, of liberality of feeling, yet those who devote themselves to the scholastic mode of studying medicine, must consider it the preferable method. Now this I conceive to be an error, even if the pretence to superior learning were not altogether as great an imposture as the pretence of some "fellows" to superior manners and "morality." But, not to digress, let me call upon my brother practitioners to understand that this antipathy cannot but exist between two such opposite classes, and that it is our business to be "up and stirring." Allow me to say in conclusion, that except for the purpose of illustrating, by an instance, a general principle of professional illiberality, I should not have noticed the writings of Dr. Ramsbotham; for I hope I may say, without being accused of presumption, that the honours and testimonials I have received, the success of my own practice, and the warm commendations which perfect strangers, nay, opponents, have lavished on the improvements in question, are sufficient to render me quite insensible to praise, blame, or neglect, from the quarter above mentioned. I am, Sir,

Your obedient servant,

JOHN POCOCK HOLMES, Surg.

21, Old Fish Street, Doctors Commons.

UNIVERSITY OF GLASGOW.

PROFESSORIAL APPOINTMENTS AND RE-APPOINTMENTS, RESIGNATIONS AND RE-RESIGNATIONS, OF DR. ROBERT LEE.

To the Editor of THE LANCET.

SIR,—In a recent number of your esteemed Journal, in reply to some correspondent, you state that you are not aware that the movements of Dr. Robert Lee interest more persons than those who constitute the members of his family; this remark might be just if this *hesitating* gentleman had confined his views to their natural boundary, but his conduct as regards this University needs only to be made known to ensure that indignant reprobation which is here so generally expressed.

On the death of our professor of midwifery, it was rumoured that Dr. Robert Lee was a candidate for the chair, and as he had served the Home Secretary in the capacity of private tutor to his son, all hope of competition vanished; in fact, Dr. Lee was soon afterwards appointed our professor. As the appointment was made nearly twelve months ago, no doubt was entertained that the learned Professor would have shed his lustre over this school during the last winter, and that he would have illustrated his brilliant discoveries by preparations which would have put those of Dr. Hunter in the shade. But alas! the Doctor, shortly after the session had commenced, and from reasons unknown to us, resigned his chair.

We fondly hoped that the opportunity of selecting a professor who was distinguished by merit, was now come; applications were forwarded to the Home Office on behalf of several eminent individuals in Scotland, but to our surprise we learned from the authorities here that Dr. Lee was *again* appointed professor.

Our fondest hopes were at length realized, the Doctor appeared *in propria persona* in May last, he was installed in the office, he was sworn in, and of course we poor mortals were prepared again to hear the discourses of so distinguished an accoucheur and philosopher [?!] What then must be our mortification to learn that the Doctor has again resigned!!!

We earnestly entreat you, Mr. Editor, to help us out of our difficulties and conjectures, and we have the more reason to call upon you after your assertion that Professor Lee's movements only interest his family. Surely this University is not to be sacrificed to the intrigues of every trifler, nor are we to be saddled with every Doctor as our professor, who may exert himself unsuccessfully to procure reputation or fortune elsewhere.

GLASGUENSIS.

Glasgow, July 1, 1834.

GRAND DINNER

OF THE

APOTHECARIES' COMPANY

At the Crown and Anchor Tavern.

Mr. NUSSEY in the Chair.

THIS annual dinner was more numerously attended than usual, which was in consequence of the deep interest excited amongst the various members of the profession on the diversified topics connected with medical education and medical reform, now brought before the public by the parliamentary inquiry. The festal throng on this occasion perhaps anticipated that the meeting would be attended by the "heads" of the profession, whose "*Bacchanalian* Speeches" might eliminate some interesting matter, and thus gratify a natural and laudable curiosity.

Mr. NUSSEY, "Master of the Company," first addressed the meeting. He was proud to find himself encircled by so many distinguished members of the profession, whilst he could not but lament that its chief ornament, Sir Henry Halford, had absented himself from the festive board. The present state of things requires the support of the virtuous and the good" (*hear*), and "when great moral endowments are,"—to use Sir Henry's own elegant expression,—"assimilated with a cultivated mind—a highly-polished classical education—which gives 'sentiment,' only to be acquired at Oxford or Cambridge," I cannot refrain from expressing my disappointment in the worthy Baronet not being here to illuminate and diffuse mirth amongst us on this occasion. I am confident that all the members of the enlightened Company, over which I have the distinguished honour to preside on this occasion, will, together with myself, be ever grateful to the learned President of the College of Physicians for the efforts which he has made,—whether they be ultimately successful or not, Heaven only knows,—in supporting the interests and honour of our Company, as well as contributing all in his power to serve individual members, which his high position and inestimable character enable him to do. The determination of the learned and worthy Baronet to support "the old system" deserves our warmest thanks, and is highly praiseworthy. Unless the apothecary, the *pure* physician, and the *pure* surgeon, be each kept in his proper place by the efforts of all, the whole fabric must fall, for there is a *fourth* description of practitioner,—call him "general," or what you please,—who is creeping forward, and who, if we are not wide awake, will be in possession of the fort, and of the *treasury* too, before long. (*Laughter.*) This FOURTH body is chiefly composed of licentiates, members of the College of Surgeons, and I grieve to add, some of the members of our Hall. It is our duty to thrust them into their proper sphere, and having done that, to keep them there. (*Cheers.*) From the enlightened governors of the Pall Mall institution can we alone expect a steady and conscientious support in our cause—a support which we, in our turn, must reciprocate towards them, by that most earnest and *palatable* mode—the consultation system. (*A laugh*). And in allusion to this I must acknowledge that the *prescriptions* of these learned men are those which pay us best. (*Hear, hear.*) It grieves me to avow publicly, that the Council of Lincoln's-Inn Fields have materially injured our interests, while the greater part of the present members of the commonalty enter into the composition of this new *fourth* set of practitioners. With regard to the evidence of those of the council who have been examined by Mr. Warburton, the able and indefatigable chairman of the Parliamentary Committee, let me ask, can anything be more absurd than acknowledging that they attend patients with *any* and *every* complaint, and that they do not confine themselves to *cutting* and *hacking*—their "legitimate" occupation? (*Cheers and laughter.*) The evidence of the licentiates of the College of Physicians is equally incompatible with all "legitimate" feelings and sound doctrines. There surely ought to be no *man*-mid-*wives* in the College of Physicians; and here again let me allude to the wisdom of its learned president, who has publicly declared in his examination before the Committee, "that whilst it would be highly inconsistent with the dignity and moral feeling of the Fellows to practise midwifery, it is equally compatible for the *Licentiates* so to do!" (*Great cheering.*) Mr. NUSSEY concluded his address by proposing "The health and prosperity of the President and Fellows of the Royal College of Physicians; and may their intellectual, classical, and moral character be ever justly appreciated, and the sacred institution of Pall Mall East never be shaken."

The speaker sat down amidst thunders of applause, and the toast having been drunk with three times three, a

Dr. WATERFIELD rose and addressed the meeting. In the absence of the learned and accomplished President, he begged leave respectfully and gratefully to thank the master of the Apothecaries' Company, for the handsome manner in

which he had expressed himself towards the Fellows of the College of Physicians, of whom he (Dr. W.) was one,—though a very humble one. (*Cheers.*) It was to be regretted exceedingly, that a hurried message from a "favourite" of one of the Royal Dukes had prevented the learned Baronet from giving the party the pleasure of his company. His cheerful countenance gladdens every society with which he mixes (*cheers*), and bountifully as he orders the management of "draughts" in the room of the invalid, he was not less liberal in the circulation of that draft which is peculiar to the festive board. (*Great cheers and laughter.*) He could venture to state, that without one exception, the Fellows of the College agree perfectly with Mr. Nussey's views as to the legitimate mode of practising physic; and all agreed with Sir Henry, that such is the imperfect education of certain graduates, that it is necessary, before admitting them into the Fellowship, not only to examine them thoroughly, but to give them a *moral* probation of not less than ten years. The observations which were thrown out respecting *consultations* with the learned heads of the College, could not fail of meeting approval amongst the Fellows, and disposing them most favourably towards the genuine stanch apothecaries. (*Hear, hear.*)

The Master of the Company now proposed "The health of the President and Council of the Royal College of Surgeons, and may they long enjoy their present honours and emoluments!"

Mr. VINCENT, in the absence of the President, Mr. White, rose and addressed the meeting amidst a profound silence. Having stated his regret that the duty of speechifying should have devolved upon him, unaccustomed as he was to public oratory, he agreed most perfectly in the general sentiments which had been expressed by both his learned friends, Mr. Nussey and Dr. Waterfield. (*Cheers.*) He (Mr. V.) could not, however, flatter himself that things could long remain as they are, and that the old and properly-called "legitimate" system of practising medicine could long go on. (*Cheers and groans.*) He lamented, in common with other members of the Council, that when the state of the College came under the eagle-eye of Mr. Warburton, there were some futile endeavours made to defend the defenceless parts of the citadel—a species of tactics which argued a misapplication or deficiency of *chirurgo-military* talents on the part of its defenders. (*Laughter.*) A wise man would not have attempted to defend some of the exceptionable parts of our laws and customs, particularly the charges at our hospitals, and the "certificate" system. He (Mr. V.) deplored that the system of the election of hospital medical officers should at this moment of excitement have been brought into public notice. With respect to St. George's particularly, it was to be lamented that Mr. Brodie's name had gone the round of the periodicals, to the astonishment of all his friends. The attempt made to elect two assistant-physicians at St. Bartholomew's he saw no objection to, in order that the duties of the superannuated might not be neglected, but he was quite aware that it would be impolitic at this time to elect *Fellows* only. (*Hear, hear.*)

The Master of the Company now gave "The health and success of the Worshipful Company of Apothecaries," which was drunk with three times three.

Mr. HARDY, one of the Court, returned thanks. There was great room for amendment in the constitution of the three corporate bodies of which the medical profession was composed. The public have not in our time made any practical distinction between "Fellows" and "Licentiates." How could they? Not one man in a thousand knows anything of the difference. (*Laughter.*) The principles on which the College chose their Council were still worse. What could be more absurd than that a man should not be considered qualified to become one of their Council because he had kept a few medicines, or delivered a woman of a legitimate? (*Cheers and laughter.*) As to the Company at Blackfriars, he could not but regret the rejections of so many Scotch graduates. There was also too much legislation for self-interest without considering the severe system of taxation of the student. As to drugs, no one could deny that many a shop was filled with trash, and that "adultery" is the order of the day. He (Mr. H.) was informed that the whole of the pernicious system of drug-making has been brought to light by Mr. Warburton. (*Applause.*)

The next toast given was, "May neither ourselves nor our patients want *draughts*."

Dr. BURROWES made some very trite observations on the propriety of the draught-system for patients, and of the necessity of drafts in return to the doctors. He regretted that some allusions had been made to the election of assistant-physicians at Bartholomew's Hospital being only proposed; he had reason to believe that the limitation alluded to was in compliment to his son. He considered his son not only entitled to the office, from the classical and moral education which he had received at Cambridge, but it would be a just tribute to the memory of

the great Mr. Abernethy, to whose daughter he had just been united in wedlock! He (Dr. B.) was highly gratified to observe the spirit of improvement and legitimate reform, which appeared to pervade all the grades of the medical profession, not only in London but throughout the Empire, and he trusted that in these inquiries they would not pass over the state of our madhouses. (Hear, hear, and cheers.)

Mr. WHEELER, lecturer on Botany to the Worshipful Company, made some observations on *new medicines*. Had the learned President of the College of Physicians been able to honour them with his company on this occasion, it was his intention to have made some interesting observations on the wonderful effects of *veratria*, confirmatory of the high recommendations Dr. Turnbull has bestowed upon it, and he would also have introduced the "Rice question," important information on which subject he had derived from that orignal and acute observer, Dr. Tytler, for whose acquaintance the worthy baronet is indebted to that great physiological and stethoscopic observer Sir David Barry.

During the remainder of the evening various desultory conversations took place, but from the rapidity with which the bottle passed, and the numerous *exhilarating draughts* which were prescribed by the "master," the meeting became exceedingly uproarious. At a late hour the company dispersed.

PLATES OF ARTERIES.

To the Editor of THE LANCET.

SIR,—As it deeply concerns not only my interest but that of many hundreds of subscribers, who are in the constant habit of reading your journal, you will render me justice in admitting a reply to Mr. Houlton's letter in THE LANCET of the 5th instant. It is true, as he states, that I have only published Part I. (the Head and Neck)—Part II. (the Thigh)—and Part III. (the Leg and Foot); and that Parts IV, V, VI, VII, and VIII, sold to him and many other subscribers as mine, were never even seen by me until sent by subscribers, who stated their fear of imposition in consequence of the evident "falling off" of the work, and the very rapid manner in which the numbers have lately been produced.

The person or his agents referred to in Mr. Houlton's letter (and who bought several hundred copies of my first number) having sold, as mine, plates which I had never beheld, committed an act which it is not judicious to designate by its proper term.

As a caution, I would repeat (what I have lately mentioned again and again in advertisements) that no plates sold as mine are mine, unless they are authenticated by my *written* signature; and as a further caution to the subscribers, allow me to state, that my authorized publisher is Mr. Dawson.

I am, Sir, your obedient servant,
G. D. DERMOTT.

35, Dean-street, Soho.

TORSION OF ARTERIES.—I have had another opportunity of putting the effect of torsion to the test. A setter was brought to my infirmary with a considerable tumour, which occupied the whole of the inside of the hock-joint, was becoming pendulous, and had two small ulcers forming on it. It was extirpated. It was plentifully supplied with bloodvessels, principally from the anterior tibial; two considerable branches of which were divided. Four turns of each with the torsion forceps completely arrested the bleeding, and the application of the instrument seemed to give very trifling pain. The bandages were not removed for four days, when the wound looked well, and is now nearly healed. I have, therefore, no doubt that torsion of the arteries will soon be established among us in all these operations. —*Mr. Youatt in "Veterinarian" for July.*

WE insert, this week, a short letter from Dr. TYTLER, in which he directs the attention of the profession and the public to the re-appearance of cholera, and to the renewed sale of deteriorated Rice in our corn-markets. This is a question of prodigious importance to the community, and Dr. TYTLER is indebted to the gratitude of the community for the zeal and ability he has displayed in introducing the subject to general notice.

CORRESPONDENTS.

Constant Reader. Yes; provided all the required conditions are fulfilled. If any doubt remain on the subject, our correspondent may, if he likes, receive an oral explanation on calling at the office of this Journal.

Communications have been received from Philo-Justitiæ—Mr. W. Tait—Mr. F. B. Barrett—Juste Milieu—Mr. J. Glasford Shepherd—*B*—M. Victor Stoeber—One of the Sufferers—Omega—M. Geo. Ritton.—Delta—M. B. O.

The publication of the statement made by *A Perpetual Pupil of the Aldersgate-street Medical School* had better be deferred until the end of September, or the first week in October, when it is to be hoped it will operate as a salutary caution, and admonish some upstart teachers or rather *fee-takers*, that they are not to treat medical students as menial servants. Unfortunately for the pupil, after he has paid his money to an establishment, and has passed some months in it, he is thus committed with respect to time and expenditure, so far as often to become the miserable victim of the persons who have been paid for protecting his interests; in short, he is so circumstanced that if he submit not to insult with patience he loses his "certificates," and is thus for a year or two deprived of his examination at the College or Hall.

F. A.—The new law will not interfere with the rights of private individuals. In answer to the first question, *yes*; to the second question, *no*.